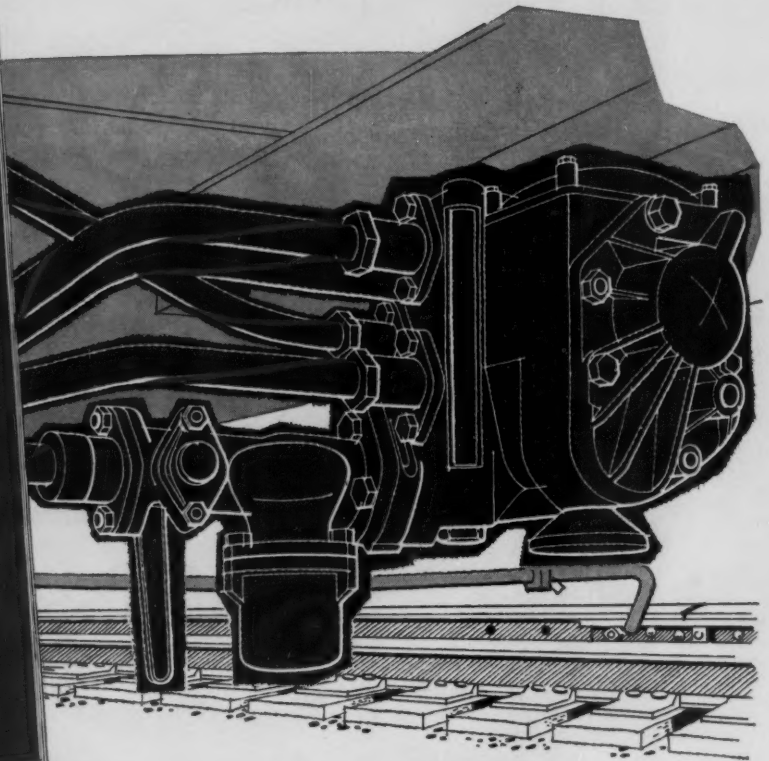
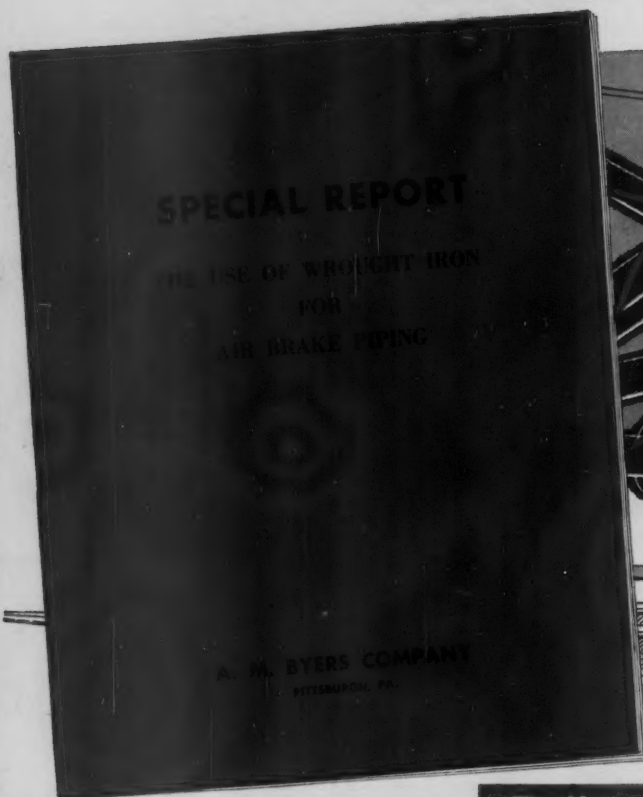


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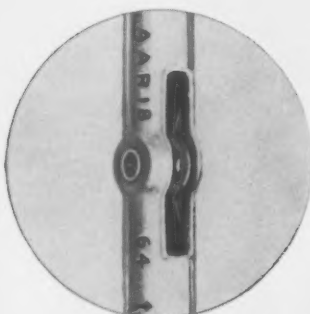
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Buffalo Brake Beam Company, New York



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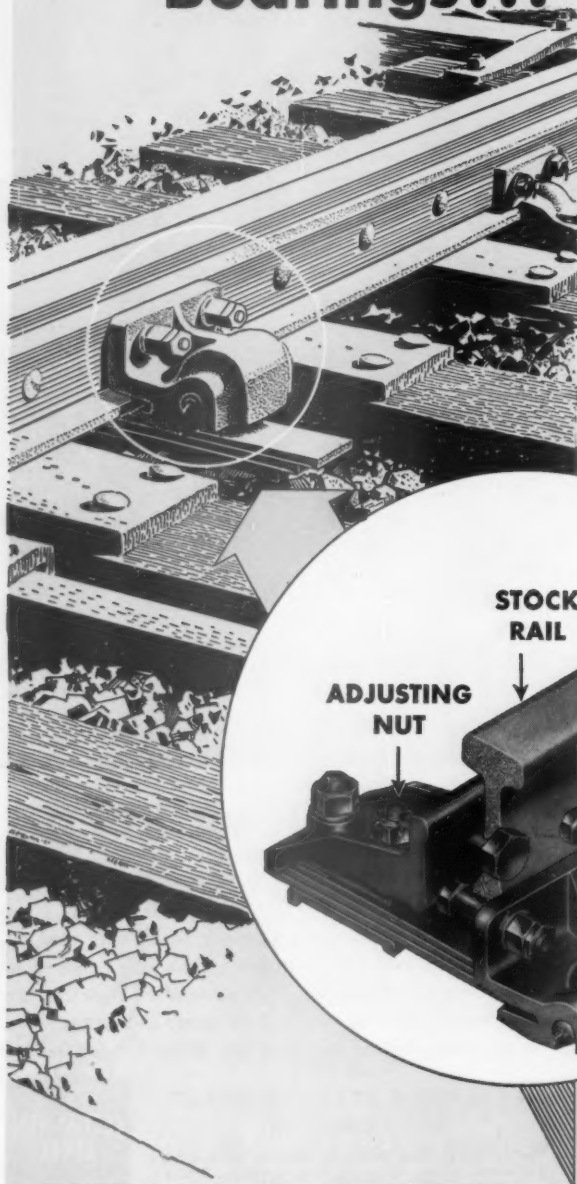
If one of the New Century's parts should ever need replacing, you'll find that parts made today will fit stands made many years ago. When you decide to remove a New Century from main line service, you can oil her up and set her down in the toughest yard or siding job. Write for full details.

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May 30, 1955

Vol. 138, No. 22

Week at a Glance

"To further the progress of railroads" is the purpose of the new Railway Progress Institute, organized by leading supply companies to replace the Railway Business Association, and to work in close cooperation with the Federation for Railway Progress to promote the common objectives of the two organizations. 7

The Army should build the first atomic locomotive, because its unique fuel requirements would be of special advantage in military service, in the opinion of Bruce C. Gunnell, chief mechanical engineer of the Southern. 9

FORUM — Railroads for defense — Are the nation's roads in a position to handle the traffic which would arise in the event of another war? Giving the railroads the right to utilize their inherent advantages in competition can insure their readiness in an emergency. 29

B&O weatherproofs car repairs in its completely "under-roof" shop at DuBois, Pa., converted from an abandoned steam locomotive shop. 30

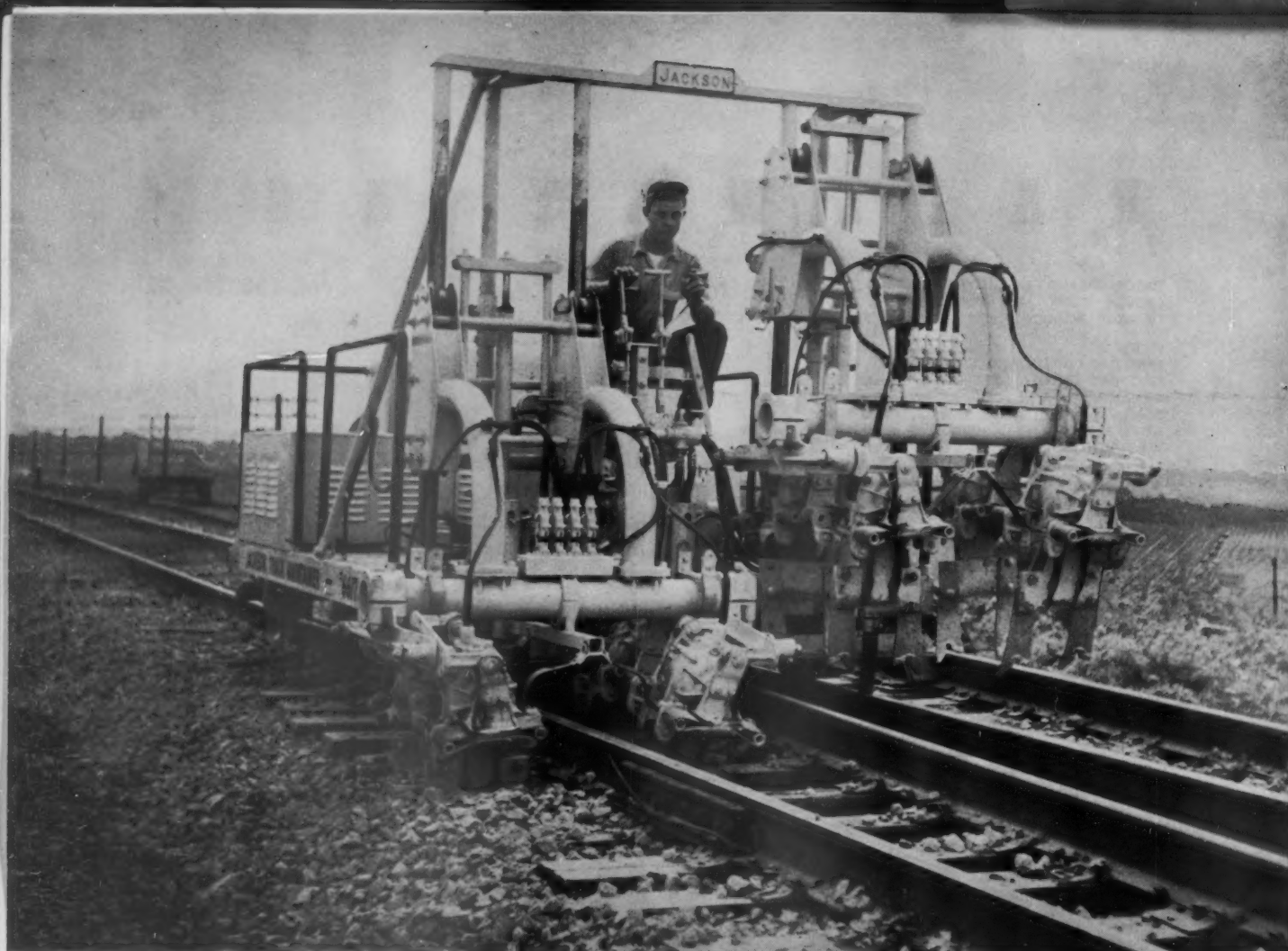
Premium cars for general service — that's what the Southern wanted, and is getting, in its latest order for 1,200 cars from Pullman-Standard. 33

Making an old railroad new—that's what they're doing on the Pacific of Mexico with complete dieselization, laying of heavy rail, mechanized track maintenance and modern communications. 35

Specially designed train grinds rail out of face. New grinding train, built by Speno, removes rail corrugations and surface defects, reduces rail maintenance, gives smoother ride. 38

BRIEFS

Striking teamsters have crippled trucking operations



JACKSON TRACK MAINTAINER

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*of those maintenance-of-way chiefs who are looking for the best means of both putting up and maintaining finest track.**



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Current Statistics

Operating revenues, three months	
1955	\$2,298,884,456
1954	2,265,312,671
Operating expenses, three months	
1955	\$1,763,808,781
1954	1,836,579,222
Taxes, three months	
1955	\$ 241,932,325
1954	222,990,391
Net railway operating income, three months	
1955	\$ 232,177,806
1954	145,201,184
Net income, estimated, three months	
1955	\$ 175,000,000
1954	92,000,000
Average price railroad stocks	
May 24, 1955	94.56
May 25, 1954	72.25
Carloadings, revenue freight	
Nineteen weeks, 1955	12,652,107
Nineteen weeks, 1954	11,781,714
Average daily freight car surplus	
Wk. ended May 21, 1955....	14,131
Wk. ended May 22, 1954....	121,545
Average daily freight car shortage	
Wk. ended May 21, 1955....	6,552
Wk. ended May 22, 1954....	307
Freight cars on order	
May 1, 1955	17,930
May 1, 1954	17,817
Freight cars delivered	
Four months, 1955	10,013
Four months, 1954	17,779
Average number railroad employees	
Mid-April 1955	1,009,159
Mid-April 1954	1,052,350

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Week at a Glance CONTINUED

in 11 western states. The walkout, over wages, also has affected piggyback and lcl operations of the Southern Pacific, carried on largely by the SP's subsidiary Pacific Motor Trucking Company, and pickup and delivery service of the Santa Fe in California. Although the teamsters voluntarily struck against only five large firms, other western truckers voluntarily halted operations to prevent selective strike action from forcing the industry piecemeal into hard bargains. Rail and air freight traffic was picking up markedly as the strike began to be felt from California to Texas.

A proposal to amend the Western Pacific's articles of incorporation to permit the company to engage in business other than transportation by railroad, will be submitted to stockholders at the next annual meeting, June 29.

Super-speed, courier-type, depot-to-depot express service will be inaugurated by the Railway Express Agency June 1 between New York, Philadelphia, Baltimore and Washington. The new rush-shipment plan, designated "SPED," is being introduced in response to shipper interest and to determine the advisability of establishing similar expedited service between other major cities.

Excursion fares so low that whole families can travel by train at less cost than by any other mode of transport are being offered by the Bangor & Aroostook every weekend, May 27 through September 5. Typical round-trip fares average less than 2/3¢ per mile.

Chrysler has joined Ford and General Motors in signing up with Canadian railways for agreed charges on new automobiles, according to the Toronto Financial Post. Chrysler reportedly was a "holdout" and continued to send most of its production in Canada by auto transport, but found it couldn't ship as cheaply as its competitors. Truckers say agreed charges are hurting them and expect they may be driven to diversify and to look for "side road runs" where rail competition is less effective.

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Railway Progress Institute Organized

Supply companies form new group "to further the progress of railroads"—Will replace RBA; work closely with FRP—Rail executives hail announcement

Organization of the Railway Progress Institute to bring to the public full understanding of the important advantages of streamlining the nation's transportation policy was announced in Chicago May 19 (*Railway Age*, May 23, page 4).

Chairman of the organization, which replaces the Railway Business Association and will work in close cooperation with the Federation for Railway Progress, is E. O. Boshell, chairman and president, Westinghouse Air Brake Company. C. L. Heater, vice-president, American Steel Foundries, was elected vice-chairman.

Members of the executive committee, in addition to Messrs. Boshell and Heater, are: Nelson C. Dezendorf, vice-president, General Motors Corporation; Lester N. Selig, chairman, General American Transportation Corporation; M. N. Trainer, vice-chairman, American Brake Shoe Company; Herbert Watt, vice-president, U. S. Steel Corporation; and R. A. Williams, president, Standard Railway Equipment Manufacturing Company.

Any company, other than a railroad, which favors conditions conducive to profitable operation of railroads under private ownership, and which is actively interested in and will support a program to improve the financial position of railroads, is eligible to join the institute.

"The new institute," the executive committee said, "will carry on a sustained effort to further the welfare of the railroad industry in the public interest—as well as advancing the legitimate concerns of railway suppliers, whose sales to railways now amount to nearly \$2 billion each year. While the insti-



EDWARD O. BOSHELL, chairman and president of Westinghouse Air Brake Company, is chairman of the newly organized Railway Progress Institute.

tute is entirely independent of the Association of American Railroads and the railroad companies, it will endeavor to harmonize its objectives with those of the railroads."

Rails "Welcome" Move—Announcement of organization of the RPI was greeted by railroad executives with statements of approval, of which the following were typical:

William T. Faricy, president, Association of American Railroads:—"Formation of the Railway Progress Institute is good news and will be welcomed by the railway industry. The new organization will be very helpful in development of public policies which will give each form of transportation better opportunity to serve public convenience and need. The railroads greatly appreciate what railway suppliers

are doing to help them out in this effort."

Daniel P. Loomis, chairman, Association of Western Railways:—"Formation of the institute by the makers of equipment and supplies is a welcome indication of their faith in the future of the railroads."

James G. Lyne, chairman, FRP, and editor, *Railway Age*:—"Federation for Railway Progress is gratified that railway suppliers have formed the RPI with public spirited objectives parallel to those of the federation. We are equally gratified that the institute has announced its intention to work in close cooperation with the federation. Our interests, those of the railroads, and the national welfare are strictly parallel in the goal we seek; namely, enlarged public understanding of the public interest in efficient and dependable railroad service, under private ownership."

David I. Mackie, chairman, Eastern Railroad Presidents Conference:—"The railroads welcome the support of the Railway Progress Institute and its plans to bring about greater public understanding of the need for equal competitive opportunity in the transportation industry. This principle has been recognized as sound and in the public interest for all other segments of our economy. It has materially contributed to our national growth. Equality of competitive opportunity in the transportation industry would likewise strengthen our nation. The vision of the broad group of industrial leaders who have formed the RPI is gratifying to all of us in the railroad industry."

Jervis Langdon, Jr., chairman, Association of Southeastern Railroads:—"Railroads serving southeastern states welcome the newly organized institute and keenly anticipate the opportunity it will afford to work more closely with those who, looking to the future, can be counted upon to make still better equipment for still more efficient railroad service. We badly need their help, too, in educating the public as to the proper place for railroad service in this highly competitive transportation era."

W. A. Johnston, president, Illinois Central:—"Announcement by producers of railway equipment and supplies of a national program to further the progress of American railroads is a significant development. . . I agree with the executive committee of the new institute that the railroad industry is on the threshold of a new era, to which railway suppliers have already contributed greatly. . . Their announced program designed to bring to the American people the full understanding of the important advantages of streamlining the nation's transportation policy will be a further great contribution to this new era of railroading."

Walter J. Tuohy, president, Chesapeake & Ohio:—"Formation of the RPI, complementing the excellent work of the FRP, is another forward step in revitalization of our American railroad industry. Railroads are well aware of the part railway suppliers have played in bringing to the public a fuller understanding of the advantages of a modern, streamlined transportation policy. This new institute comes into being at a good time to help achieve an enlightened government approach to the problems of transportation, and new and brighter era in the industry."

J. D. Farrington, president, Chicago,



WILLIAM T. FARICY (center), president of the Association of American Railroads, with Contran de Juniac, minister plenipotentiary of France (left), and Pierre Deshayes, general representative of the French National Railroads in North America, just after Mr. Faricy was decorated with the insignia of "Officer" in the Legion of Honor of France at the French Embassy, Washington, D.C.

Rock Island & Pacific:—"Formation of the institute and its announced policy of bringing to the public a full understanding of how streamlining the nation's transportation will benefit the nation as a whole, is indeed welcome news. The railway suppliers, united in this new effort, are to be congratulated for this public service."

Fred G. Gurley, president, Atchison, Topeka & Santa Fe:—"We of Santa Fe welcome formation of the Railway Progress Institute. I am confident this new organization will aid the railroads in their program to bring about elimination of inequities which have built up in recent years in the competitive transportation picture."

Hough Named Chairman Of AAR Claims Division

Horton H. Hough, manager of the Claims Department, Canadian Pacific, was elected chairman of the General Claims Division, Association of American Railroads, at the division's first annual meeting at Washington May 4 to 6.

He succeeds H. C. Ozburn, assistant general claim agent, Central of Georgia.

Other officers elected and re-elected include:

V. S. Adkins, general claim agent, Elgin, Joliet & Eastern, first vice-chairman; G. W. Luhr, general claims agent, Southern Pacific, second vice-chairman; K. A. Carney, director, Claims Research Bureau, executive vice-chairman; and Bruce H. Smith, assistant director, Claims Research Bureau, secretary.

William T. Faricy, AAR president, was among the speakers at the meeting, discussing the recommendations made by the President's Cabinet Committee on Transport Policy and Organization (*Railway Age*, April 25, page 49).

He said the committee's report has the "strong endorsement of the railroad industry" and is opposed "chiefly by persons or organizations with an interest in continuation of the present inequalities in transportation policy." He said he would "like to have seen" recommendations for more freedom to experiment in different transportation "modes" and for equalization of taxation, subsidies and charges for use of public facilities.

Safety Section to Meet at Buffalo

The program of the annual meeting of the Safety Section, Association of American Railroads, to be held June 7-9 at the Hotel Statler, Buffalo, will include a luncheon address by Perry M. Shoemaker, president of the Lackawanna, on the 8th. Speakers at the opening day's session will be Richard G. May, vice-president, Operations and Maintenance Department, AAR, and David L. Arm, manager, industrial department, National Safety Council. Ralph C. Champlin, vice-president—

public relations, Pennsylvania, will address the morning session on the 8th. K. A. Carney, executive vice-chairman, General Claims Division, and director, claims research bureau, AAR, will address the final session on the 9th.

Reports will be presented by chairmen of the section's standing committees, as follows:

Prevention of Highway Crossing Accidents (E. G. Kiesele, superintendent safety, Milwaukee).
Uniformity in Accident Reporting (J. R. Tenney, superintendent safety, Western Maryland).

Statistics (J. T. Williams, manager safety, Pennsylvania).

Education (D. E. Mumford, superintendent safety, New York Central).

Trespassing (J. H. Williams, superintendent safety, Texas & Pacific).

Trespassing and Safety Education (F. B. Wildrick, superintendent property protection and fire prevention, Erie).

Train Accidents (W. H. Roberts, superintendent safety, Chicago & North Western).

Train Service Accidents (R. S. James, superintendent safety and fire prevention, Denver & Rio Grande Western).

Nontrain Accidents (C. T. Dewitt, superintendent safety and fire prevention, Northern Pacific).

There also will be special messages by F. R. Callahan, chairman, Railroad Section, National Safety Council, and director of safety and compensation, Pullman Company, and by Francis J. Cadin, chairman, Niagara Frontier chapter, American Society of Safety Engineers.

Superintendents Meet in Chicago, June 7-8-9

The 59th annual meeting of the American Association of Railroad Superintendents will be held in the La Salle Hotel, Chicago, June 7-9. Highlights of the program follow:

TUESDAY, JUNE 7

9 a.m.

Registration—Charge to superintendents by C. H. Jones, vice-president and general manager, Chicago South Shore & South Bend—Address by Association President B. W. Tyler, Jr., assistant to vice-president, Pennsylvania—Regular business.

Reports of committees on:
"Passenger Service—Ways and Means of Reducing Passenger Deficit, Retaining Present Patrons and Attracting New Business."

"Hidden or Easy-to-Overlook Costs Affecting Operating Results of Division or Railroad, and What Can Be Done to Reverse Their Upward Trend."

Rules.
"Trailer-on-Flat-Car Service—Present Use and Immediate Future Potential."

WEDNESDAY, JUNE 8

9 a.m.

Report of committee on "Greater Use of Prior Classification in Both Local and Interline Freight Service."

Address by W. A. McClintic, president, Railway Systems and Procedures Association, and assistant to general manager, Chesapeake & Ohio.

Report of committee on "Modern Methods to Simplify Processing of Data."

Luncheon address by J. P. Newell, vice-president (operations), PRR.

Afternoon

Inspection trip: Special Chicago & Western Indiana train leaves Dearborn station, 2:15 p.m., to tour facilities of C&WI, the Belt of Chicago and the Milwaukee.

THURSDAY, JUNE 9

9 a.m.

Reports of committees on:
Loss and Damage.

"Triple Casualty Account: Personal Injury, Loss and Damage, Train Accidents—Ways and Means To Control and Reduce."

Business meeting.
Election of officers.

The 97th regular meeting of the **Pacific Coast Shippers Advisory Board** will be held at the Biltmore Hotel, Los Angeles, June 9-10. Inter-

state Commerce Commissioner Howard G. Freas will be the luncheon speaker on the 10th; his subject—"Comments from Washington."

The annual grain session of the **Trans-Missouri-Kansas Shippers Board** will be held June 1-2 at the Baker Hotel, Hutchinson, Kan. A forum on lcl traffic will open the two-day meeting. A luncheon at which car efficiency will be the main topic will follow, and the afternoon will be devoted to parallel shipper and carrier forums. A new program feature will be a "loss and damage dinner." The general meeting will be held the following morning. Guy B. Josserand of Dodge City, Kan., will be guest speaker at a joint luncheon session with the **Hutchinson Chamber of Commerce**. The annual grain forum will follow that afternoon. L. W. Witte, traffic manager of the D-X Sunray Oil Company, Tulsa, Okla., and general chairman of the board, will preside at the general session. G. W. Long, chief of the transportation division, Commodity Credit Corporation, Kansas City, will preside at the grain forum.

Competitive Transport

Hoover Commission Would End Parcel Post Subsidy

The Hoover Commission has recommended that the Postmaster General seek further increases in parcel post rates—"if the current rates do not cover all costs" of the service, "including indirect costs."

The recommendation was one of 22 made to Congress in a report on business enterprises of the federal government. The Hoover Commission, so-called because it is headed by former President Hoover, is the Commission on Organization of the Executive Branch of the Government.

It found generally that the federal government is actively and unfairly competing with private business on a wide front. Among such activities conducted by the Department of Defense are the operation of air transport fleets which in 1954 carried 3,900,000 passengers, besides 4,784,000 military "hitchhikers"; and the Military Sea Transport Service which in 1954 operated 221 ships carrying 2,038,381 passengers and 23,000,000 tons of cargo.

The report's comment on parcel post included an assertion that the failure of rates to cover the full cost "constitutes a subsidy to users" of the service. The commission went on to cite a 1951 report of a Congressional committee which said there was no justification for the government subsidizing its own parcel post service "in competition with private railway express service."

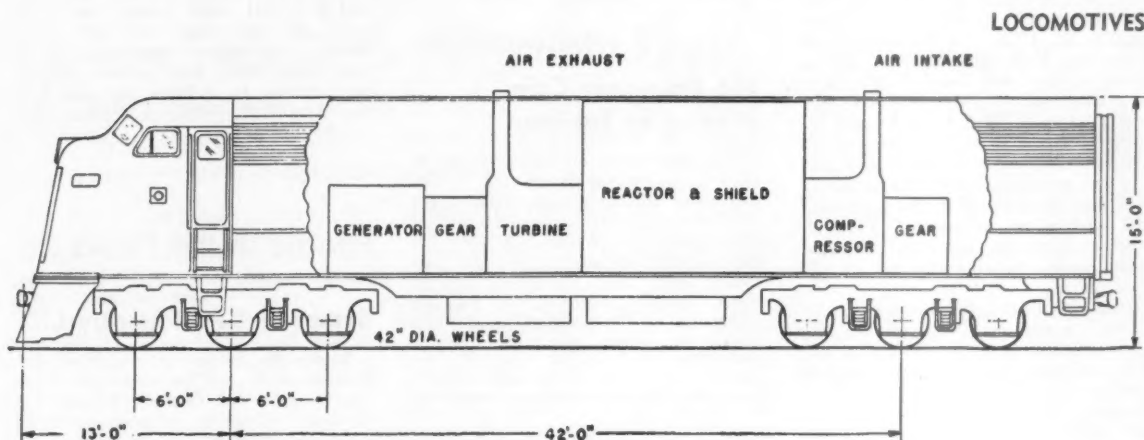
Alaska Railroad—Another recommendation of the commission is a three-part proposal relating to the govern-

ment-owned Alaska Railroad. It says that rates of that road "should be raised to a more adequate level"; that wherever it would not interfere with the operation of the railroad, its hotels

and its other commercial services be leased or closed down; and that road be incorporated and made subject to the Government Corporation Control Act.

There has been no general revision of the Alaska Railroad's rate structure since 1937, the report said. It also said that 57% of the railroad's 1953 carloadings were military shipments.

Equipment & Supplies



SECTION of an all-purpose atomic locomotive, the shape of which could be modified for yard service. Total length of the locomotive is 68 ft.

Army Should Build 1st Atomic Loco

Status of motive power using nuclear fuel is brought up to date by railroad executive

The military service is the first and most likely place for an atomic locomotive to be used; "it certainly does have great possibilities in this field," said Bruce C. Gunnell, chief mechanical engineer of the Southern, at a meeting sponsored by Atomic Industry Forum, Inc., in New York, May 23.

Mr. Gunnell's conclusion was based on the facts that: (1) Development costs of such a locomotive would be high; (2) early hazards in commercial

service would be relatively great; and (3) such a locomotive would offer special advantages in locations where fuel is not readily available.

He proposed a type of locomotive which would employ solid nuclear fuel, to dispose of the hazards of leaks which would attend the use of liquid fuel (soup). Heat from the reactor could be transferred to air which has been compressed and which would absorb heat up to about 1,300 deg F,

TABLE 2—Cost per Year*

Data	Diesel	Atomic
Expected life years	15	15
First cost @ 15-year life	\$135,200	\$347,233
Maintenance per year (diesel 40¢ per mile)	\$20,000	\$69,333
Cost of fuel per year (#17, Table 1)	57,600	115,200
Cost of fuel storage, handling and liability in addition to diesel (est.)		25,000
Extra cost of supervision and training, over diesel (est.)		10,000
Total cost per year per locomotive	\$135,200	\$347,233
Operating cost per mile	\$9.4	\$22.40
Per cent operating cost (per cent)	100	258

*Interest not considered

TABLE 1—Comparison of Diesel and Atomic Locomotives

Data	Diesel	Atomic
1. Locomotive efficiency (per cent)	28	16
2. Fuel per mile, lb (average)	28	.000,024,500
3. Total fuel capacity, lb (est.)	14,000	33
4. Loco miles per month (est.)	12,000	12,000
5. Loco miles per year	144,000	144,000
6. Portion of total Btu's used per fueling (est. per cent)	100	20
7. Pounds used per fueling (#3x#6)	14,000	6.6
8. Total Btu per lb of fuel (based on data available)	20,000	40,000,000,000
9. Total Btu per mile used (#2x#8)	560,000	982,000
10. Work in Btu per mile (#1x#9)	157,000	157,000
11. Total Btu per fueling (#7x#8)	28,000,000	264,000,000,000
12. Years between fuel changes #11/#9x#5	.00347	1.87
13. Fuel cost new, per lb (based on Borst paper at Atomic Industrial Forum meeting, March 1954)	\$.0142857	\$9,090.90
14. Credit for poisoned fuel (est. 1/5 of cost of new fuel)		\$1,818.18
15. Net cost of fuel per lb	\$.0142857	\$7,272.72
16. Net cost of fuel per fueling (#3x#15)		\$240,000
17. Net cost of fuel per year (#16/#12)	\$57,000	\$128,000
18. Net cost of fuel per mile (#17/#5)	\$.40	\$8.9
19. Per cent fuel cost (from #18)	100	222
20. Fuel lb/hp/hr atomic plane (life 2/7/55) (800 mphx .5 lb)/(14,000 miles x 475,000 hpx .18 eff. per cent	.38	.000,000,326
21. Fuel lb/hp/hr atomic plane (life 2/7/55) (800 mphx .5 lb)/(14,000 miles x 475,000 hpx .18 eff. per cent		.000,000,340

as in the case of a gas turbine, where this heat would be converted into power and the air discharged to atmosphere. Should this result in too much atmospheric contamination, a liquid coolant could be passed through the reactor and pumped through a heat exchanger, where air or other gas would take up the heat and carry it to the power turbine.

Based on the best available data, Mr. Gunnell offered the figures shown in the two accompanying tables for comparing diesel and atomic locomotives.

Mr. Gunnell also considered potentials of stationary atomic power plants for railway electrification, but does not believe the electric locomotive, with all its overhead wires, can compete with the diesel, even if electric power, produced by atomic energy, could greatly reduce present electric costs;

he added, however, that if cost of present-day diesel fuel continues to increase so as to become prohibitive for railroad use, it is likewise possible to see a different picture with regard to the electric locomotive.

Class I Roads Install 413 Locomotives in 4 Months

Class I railroads installed 413 new locomotive units during the first four months of 1955, the Association of American Railroads has announced. Included were 408 diesel-electric units and five electric locomotives. In the first quarter of 1954, Class I roads installed 558 new locomotive units, which included 556 diesel-electric units and two gas turbine-electric locomotives.

April 1955 installations comprised 107 new units, including 105 diesel-electrics and two electrics, compared with April 1954 installations of 137 new units.

New locomotive units on order by Class I roads on May 1 totaled 360, of which 355 were diesel-electrics and five were electrics, compared with 300 new units on order May 1, 1954, which included 277 diesel-electrics and 13 gas turbine-electric and 10 electric units.

The **Green Bay & Western** has ordered two 1,600-hp diesel road-switching units from Alco Products at an estimated cost of \$294,000. Delivery is expected by July 1.

The **Long Island** has been authorized by its directors to buy 10 diesel locomotive units, which, when received, will end all use of steam power on the railroad.

The **Pennsylvania** has ordered from the Electro-Motive Division of General Motors Corporation 50 1,750-hp road-switching diesel units for delivery in October and November. The new diesels, to cost an estimated \$9,400,000, will be equipped with cab signals and train-phone communications equipment. They will replace 66 steam locomotives, and bring the PRR's total diesel fleet to 1,476 locomotives, made up of 2,034 units aggregating 2,811,770 horsepower.

FREIGHT CARS

The **Missouri Pacific** has received authority from the U.S. District Court at St. Louis to build at its De Soto, Mo., shops 1,000 box cars, at an estimated total cost of \$7,482,150. The cars will include 250 50-ton 50½-ft cars with loading devices and 8-ft doors; 300 50-ton 50½-ft cars; 350 50-ton 40½-ft cars; and 100 50-ton 50½-ft cars with 15-ft doors for special loading purposes. Delivery will begin in September and be completed early in 1956. The court also authorized conversion of 523 open-top hopper cars to covered hoppers at a cost of \$1,673,600.

The **Southern** is inquiring for 1,500 70-ton triple hopper cars.

The **Union Tank Car Company** has ordered from its own shops, for delivery late this year, 200 10,000-gal tank cars and 200 11,000-gal tank cars.

The **Wabash** will build 97 70-ton gondola cars at its Decatur, Ill., shops. Delivery is scheduled for September and October.

PASSENGER CARS

206 Passenger Cars Wanted by Pakistan

The government of Pakistan has invited bids for supply of 121 broad-gage and 85 meter-gage lightweight steel passenger cars, according to *Foreign Commerce Weekly*. A copy of the bidding documents may be borrowed from the Commercial Intelligence Division, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D.C.

Who Should Pay for Rail Preparedness? Tuggle Asks

Who is going to pay for it if railroads are to maintain "excess capacity" in the interest of national defense?

Interstate Commerce Commissioner Kenneth H. Tuggle called this a question of "major importance" in an address at the second annual traffic and transportation conference at Michigan State College, May 12.

The railroad investor "might well argue," he said, that it would be unfair to make him "shoulder such a burden, especially since it is imposed by factors" he doesn't control. But at the same time, he went on, "it is equally unjust to expect the shipper to bear the cost of maintaining these extra facilities which are maintained to meet some future contingency which conceivably may never occur. . ."

Mr. Tuggle warned that other modes of transportation could not be expected in a national emergency to take up all the slack which would result from railroads letting their present reserve capacity decline. Their tendency has been to turn over to railroads some of their business at such times, he said.

But, the commissioner continued, there is also to be reckoned with the danger that "rate cutting and its counterpart, cutthroat competition" would rise up should lack of traffic cause some of the excess facilities to be idled.

He recalled that, despite some apprehension at the start of the last war, the railroads met "substantially all" wartime needs and earned the title of the nation's "basic transportation industry."

The **Long Island** has added five locomotive-hauled 120-passenger coaches to the order it recently placed with the Pullman-Standard Car Manufacturing Company, increasing the total order from 90 cars to 95 (*Railway Age*, May 23, page 12). This order, plus a 1954 order for 125 cars, on which deliveries have just begun, will give the LI a total of 220 new cars, divided as follows: For non-electrified lines—80 coaches; for electrified lines—22 head-end m-u cars, with motors and controls, 74 "mid-train" m-u cars, with motors but without controls, and 44 m-u trailer cars, with neither motors nor controls. In addition, the road has one new Budd RDC in service, and another on order.

People in the News

Symes to Get Honorary LID

James M. Symes, president of the Pennsylvania, will be given the honorary degree of Doctor of Laws by Ursinus College at its commencement exercises June 6, "in recognition of his outstanding record of leadership in the transportation industry." Mr. Symes also will deliver the commencement address.

Rates & Fares

ICC Overrules Tennessee PSC on Intrastate Rates

The Interstate Commerce Commission has overruled the Tennessee Public Service Commission by authorizing increases in intrastate rates there to match Ex Parte 175 advances.

The ICC found the rate levels, as imposed by the state commission, to be unlawful and prejudicial to interstate commerce.

Commodities involved include brick, cement, clay, shale, coal, fertilizer, limestone, road aggregates and wood, with some exceptions. The roads estimated their annual loss during 1952 under the imposed Tennessee rates at more than \$865,000.

East's Streamlined Mixing Rule Granted ICC Reprieve

Eastern railroads now have until August 15 to cancel the "streamlined" version of their rule 10. The previous cancellation date was June 15, but the Interstate Commerce Commission has granted a two-month reprieve.

Rule 10 is the mixing rule, and the "streamlined" version permits its use

in combination with all-commodity rates, i.e., it provides that commodities rated lower than all-commodity basis may be included in a mixed carload taking an all-commodity rate and charged for at the lower rate. The can-

cellation requirement is part of the commission's plan to put on a parity basis the all-commodity rates published by railroads and motor carriers operating in eastern territory (*Railway Age*, May 2, page 17).

the so-called "high-density" export type, but the new traffic was largely in the compressed "standard density" form.

The puzzling thing was that fires increased in the "standard density" form which was handled in closed cars. Fires in earlier cotton shipments could generally be traced to carelessness of smokers.

In 1953 the SP was plagued with 83 fires and a claim bill of well over \$200,000. The Fire Protection & Insurance Section of the Association of American Railroads suggested that coated bands around cotton bales would eliminate the possibility of sparks from steel bands on steel within a car. But the SP felt there was more to the problem, and called in Stanford Research Institute—an affiliate of Stanford University—for a thorough study (*Railway Age*, May 10, 1954, page 4).

A final technical report on the SP-Stanford Institute study will be concluded sometime in June. P. M. Chaimov, the SP's manager of freight protection, merchandise and station service told the AAR's Freight Loss & Damage Prevention Section during

Operations

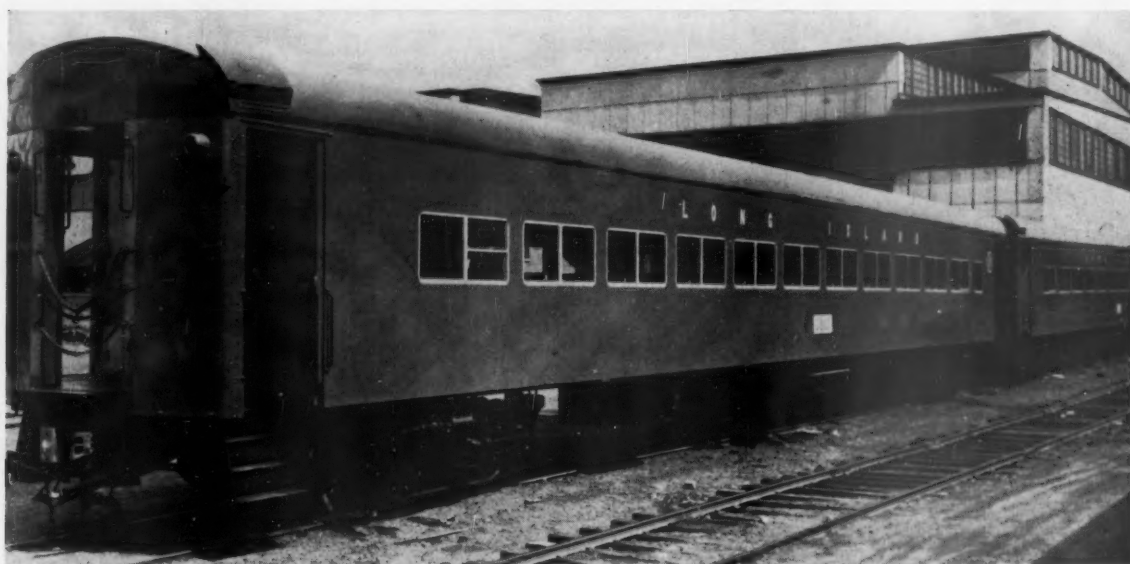
How to Stop Cotton Shipment Fires

What causes them and how to control them may no longer be a mystery—Southern Pacific and Stanford Research Institute seem to have the answers

A strange and puzzling problem for railroad freight claims officers and prevention men appears to have been solved—but with some strange aspects to the solution, too.

The Problem—Cotton shipment fires are an old problem, which became especially acute for the Southern Pacific after World War II, when ex-

pansion of the West and Southwest made California and Arizona heavy producers of cotton. Between 1945 and 1954 the SP's cotton carloadings jumped nearly 350% and hauls increased in length as more traffic flowed through El Paso in connection with SP Lines in Texas and Louisiana. Most earlier cotton traffic had been in



NEW CARS FOR LONG ISLAND

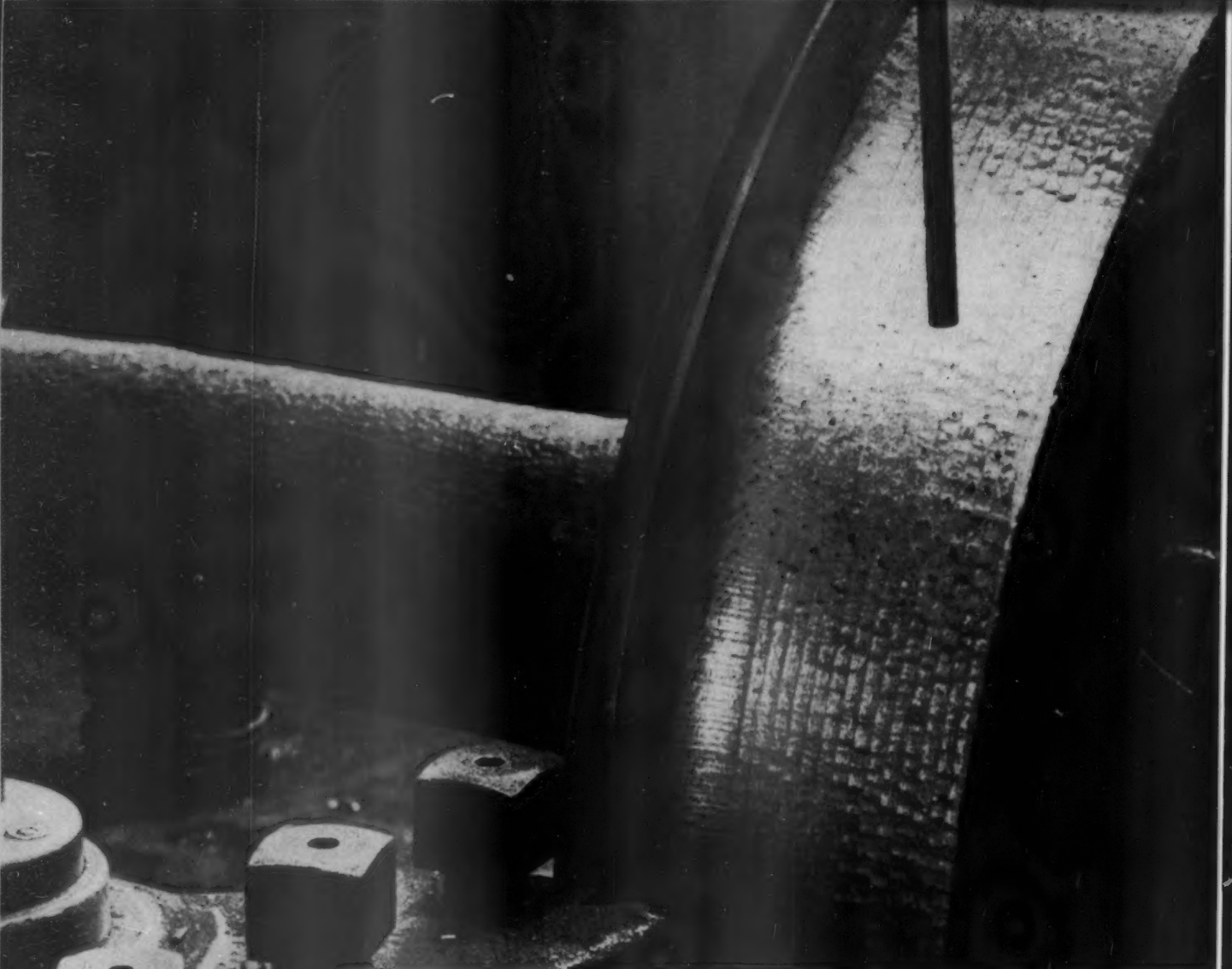
FIRST OF 220 new cars being built for the Long Island by the Pullman-Standard Car Manufacturing Company, under the railroad's \$60-million rehabilitation program, went into revenue service May 24. The order includes 80 cars, of the type shown here, for use on non-electrified lines; and 140 similar cars for operation in electric zones. Each car seats 120 passengers in plastic-covered, foam-rubber-upholstered seats; and is air-conditioned.

To give as many passengers as possible a look at the new equipment, the first cars to be delivered were made up as a special train scheduled to cover all major runs in non-electrified territory—a total of 92 trains—over a period of some four weeks.

Delivery of m-u motor cars and trailers for use in electric territory will begin late in June or early in July, while the last of the new cars are scheduled for comple-

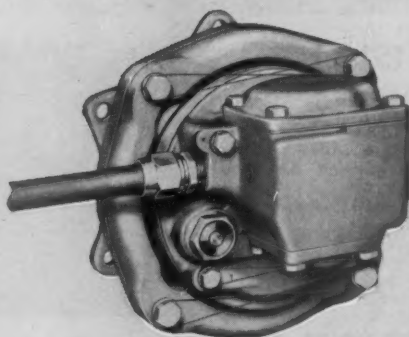


tion in April 1956. Meantime, the LI is completely modernizing, in its own shops, 696 other cars.



**Reduce the need for wheel turning
with this reliable anti-wheel-slide device**

*the Westinghouse AP Mechanical Pneumatic
Decelostat® Controller
for passenger cars*



**Westinghouse Air Brake
COMPANY**

AIR BRAKE DIVISION



WILMERDING, PA.

its recent annual meeting in Denver. While the report is not yet complete, two basic causes for the fires have been found and economically feasible means for control of each have been worked out, he revealed.

Odd Behavior—The first cause was found to be sparks caused by friction of metal on metal—just as the FP&I Section had stated. The second cause, however, was something not previously known or recognized—the friction of cotton on wood.

"Strangely," Mr. Chaimov said, "It was found that in the friction of cotton and wood the wood has a tendency to ignite first. This phenomenon could account for so many wall and floor fires in sound equipment." Both types of friction are equally important causes of fires, he stated.

As control measures the study points to:

- Burlap or sugar wrapping on bales instead of jute mesh-type bagging.
- A thorough check of cars to insure that walls and floors are free of metal straps, nails, etc., which might cause steel-on-steel sparks.
- Cars must be free of holes that might tear bales and start cotton-on-wood friction.
- Loads should be stowed tightly cross-wise in the car—five bales wide—to prevent vertical movement.

Putting Them Out—A new means of putting out cotton fires in box cars also has come out of the studies.

"It requires that side doors be kept closed and the fire extinguished by making a hole in the roof of the car for insertion of a fog nozzle. The fire is smothered with a fine spray of chemically treated water known as 'wet water.'" Mr. Chaimov said the method was "highly successful" on the SP in the past season and that "we heartily endorse its use by all carriers which experience cotton fires."

The studies, he said, have covered many other phases of the problem and, among other things, point to a possible change in compression methods.

IC Will Serve 3 Cities With New T-O-F-C Service

The Illinois Central soon will begin piggybacking its own l.c.l. between Chicago, Memphis, Tenn., and Jackson, Miss., President W. A. Johnston told shareholders at the road's annual meeting.

The road has equipped 25 of its 53-ft flat cars for the new service, Mr. Johnston said. After the service is under way, he added, the road plans to publish truck competitive rates for trailer loads on some commodities.

Overnight service will be provided between Chicago and Memphis on the IC's fast merchandise train, "MS-1."

Ultimately, Mr. Johnston said, the IC may decide to open up this service to common carrier truckers. If this is done, common carrier trailers would probably be handled on a mileage basis, he said.

Mr. Johnston said the IC expects to be completely dieselized by 1958. This will require expenditure of about \$40 million in the next three years, and will give the road 596 diesel units when completed, compared with present ownership of 370 units.

Starting Soon—More Santa Fe Piggyback

The Santa Fe will announce shortly a new truck-trailer-on-flat-car service between points in California, Arizona and New Mexico and east as far as El Paso, Tex. The road also plans to announce services intrastate in California. Rates and service in both instances will be "competitive with all forms of transportation," according to a company spokesman.

The road is one of three participants in the Southern California-Pacific Northwest service established via the San Joaquin valley. May 25 (*Railway Age*, May 23, page 4).

Issues in Per Diem Case Argued Before Commission

The Interstate Commerce Commission heard oral argument May 25 in the per diem case out of which has come an examiner's report favoring a reduction in the car-rental charge from \$2.40 per day to \$2.10.

As reported in *Railway Age*, December 13, 1954, page 7, Examiner Howard Hosmer advised the commission to issue a declaratory order holding that such a 30-cent reduction would be reasonable. He also urged a finding that rates of \$1.75 and \$2 were reasonable during the periods they were in effect.

Complainants in the case, represented by S. R. Brittingham Jr., general attorney of the Santa Fe, argued against the examiner's findings and urged that

the commission find the \$2.40 rate reasonable. Complainants in the case are 19 of the larger Class I roads, supported by 14 other Class I roads as intervenors. They charged that the defendants, which include the New York Susquehanna & Western, Boston & Maine, New Haven, Rutland, Long Island and a large group of short lines refused to pay the \$2.40 rate.

For the defendants, W. J. Hickey, vice-president and general counsel of the American Short Line Railroad Association, called on the commission to establish a set of guiding principles with which per diem rates could be produced. He said the defendants feel the rate should be less than the recommended \$2.10 but commended the examiner for progress made toward establishing a proper formula for working out rates. The defendants, he said, opposed a non-binding declaratory order and asked the ICC to draft the formula from which the rates would have to be developed.

Accounting methods used in determining per diem rates were discussed pro and con by complainants and defendants. The former took exception, they said, to Mr. Hosmer's use of original cost figures in computing depreciation of equipment, holding that reproduction costs produced more equitable figures. The defendants, however, argued for the use of original cost figures and contended that freight car repair costs were improperly applied by the complainants in reaching the \$2.40 rate.

Does Claim Prevention Pay? "Yes!" Says UP's Lynch

"The era of 'lip service' in April is over and year 'round efforts to curb loss and damage are now penetrating to men on the ground and bringing results," Perry J. Lynch, vice-president of the Union Pacific, told the Freight (Continued on page 16)



UNUSUAL MEETING—Not stockholders, but general chairmen of railway brotherhoods on property, comprise the audience of this "annual meeting" held recently in Chicago by the Chicago & Eastern Illinois. Cover-

ing much the same ground he did a week earlier with stockholders, President C. M. Roddewig gave the union leaders a frank picture of both bright and dark spots in C&EI's future. The men were free to ask any questions.



6 major railroads installing NMB Sealed Journal Box Kits

"Patented" and "Patents Pending"

PROVE TO YOURSELF, ON YOUR RAILROAD

that the NMB Kit can effect these vital operating benefits:

MAKE THIS SIMPLE TEST

Equip 10 solid bearing cars with NMB Kits. This will cost about \$232. per car. Operate cars under all possible conditions. We predict bearing end wear will be cut to an almost unbelievable 0.0006" per 1,000 car miles. Inspection will be needed only once a month. Oil consumption will drop to about 1 oz. per 1,000 journal box miles.

These predictions, amazing though they may seem, are based on the experience of 8,000,000 journal box miles of operation of the Kits by Class I railroads.

This same operating experience shows NMB Kits pay for themselves in 18 months, and thereafter save \$6.88 per 1,000 car miles.

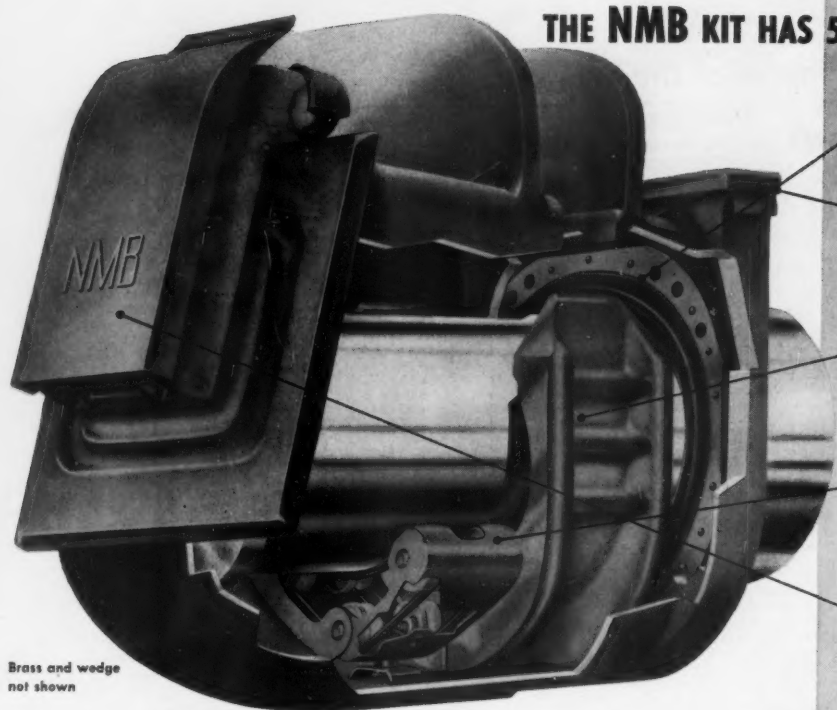
- PRACTICALLY ELIMINATES BRASS END WEAR
- 81.4%* ELIMINATION OF HOT BOXES
- 90% LESS OIL CONSUMPTION
- 90% LESS INSPECTION TIME
- ELIMINATION OF VIRTUALLY ALL ACCIDENTS DUE TO HOT BOXES

WM. G. RINGLAND, former Assistant Superintendent of Equipment, New York Central System and now Eastern District Manager, Railway Equipment Division, National Motor Bearing Co., Inc., says:

"In my 40 years of railroad experience, this is the first time I have seen a practical, economical device that licks the hot box problem for solid journal bearings."



A.A.R. Approved for Interchange Service on 10,000 Cars



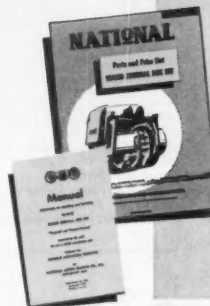
Brass and wedge not shown

THE NMB KIT HAS 5 PRINCIPAL PARTS

- A. OIL SEAL.** Keeps oil in; dirt, water, brine and snow out.
- B. DUST GUARD WELL COVER and FILTER.** Exclude dripping water, snow, brine; yet permit breathing.
- C. JOURNAL GUARD BEARINGS.** Eliminate axle damage during humping, coupling, starting or heavy braking.
- D. OIL CIRCULATOR.** Lubricates bearings with $\frac{1}{2}$ turn of axle. Guarantees continuous lubrication. Bearings run 50° cooler.
- E. JOURNAL BOX LID and WAFFLE GASKET.** Provide tight oil and water seal at front opening. Eliminate vibration wear.

The NMB Sealed Journal Box Kit is the result of applying modern automotive engineering principles to a century-old railroad problem. Developed by NMB in collaboration with 3 major western railroads, the NMB Kit is a modern, sealed oil bath lubrication and dirt exclusion system for solid bearing journal boxes.

Installation is made in the regular standard A. A. R. journal box; no alteration is required. Waste packing normally used for lubrication is removed. NMB Kits for 5" x 9", 5 $\frac{1}{2}$ " x 10" and 6" x 11" A. A. R. standard solid bearing journal boxes are available.



NEW MANUAL describes simple, inexpensive installation steps. PARTS & PRICE LIST shows all Kit parts, gives quantity purchase discounts. Sent immediately without obligation.

For complete information or consultation at your headquarters, write or telephone NMB Railway Equipment Division offices listed below.



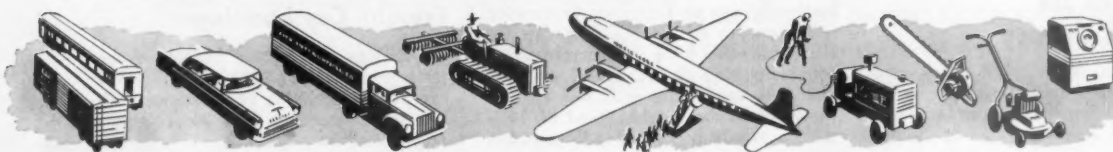
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*Based on operating experience of major Class I railroads.



Operations

(Continued from page 13)

Claim Division of the Association of American Railroads at its recent annual meeting in Denver.

Credit must be given, he said, to freight claim prevention men and to the growing use of motion pictures, transparent demonstration box cars, meetings with yard crews and the other activities they direct. "I can tell by the reaction of men on the ground that this kind of program works," he stated.

Despite the fact that competitors now handle some of the cream of the traffic and that further erosion of traffic from railroads is in immediate prospect, the horizon is bright, he added, with the Weeks report as the "brightest spot" of all (*Railway Age*, May 16, page 9).

Challenge—"The only product we have to sell is service," Richard G. May, vice-president, Operations and Maintenance Department, AAR, said at the opening session of the meeting. "Service must include not only fair prices, but also satisfactory performance and courteous treatment if we are to meet the challenge of our competitors. We must face our responsibilities as businessmen. We can only do this by providing satisfactory service at a satisfactory price and keeping a satisfied customer. To this end we must continue to improve plant and equipment and operating techniques for safe and expeditious handling of shipments entrusted to us."

Insult—"Nothing is so irritating to a patron as having his freight lost or damaged and to delay reimbursing him—when legally proper settlement can be made promptly—adds insult to injury," E. W. Thomas, retiring chairman of the division, and general freight claim agent of the Santa Fe, said in his annual report. He urged division members to "take a good hard look at the cost of labor, paperwork and accounting on small claims. The present cost of processing loss and damage claims dwarfs, by many millions of dollars, the amount paid in settlement."

New Officers—Succeeding Mr. Thomas as chairman of the division is O. J. Wullstein, general claims agent, UP. C. E. Thrasher, general freight claim agent, Baltimore & Ohio, succeeds Mr. Wullstein as first vice-chairman, and H. K. Hayes, superintendent freight claims, St. Louis-San Francisco, succeeds Mr. Thrasher as second vice-chairman. A. L. Batts is executive vice-chairman.

LV Extends Its Piggyback Service

The Lehigh Valley last week expanded its trailer-on-flat-car service in eastern New Jersey between stations on its main line, Newark to South

Plainfield, including its Perth Amboy and Raritan branches, on one hand, and Cleveland, Detroit, Chicago, St. Louis, and East St. Louis, on the other. The service is operated in conjunction

with the Nickel Plate and the Wabash. Further extension by the LV of its piggyback service is scheduled next month to Buffalo and other Niagara Frontier points.

Figures of the Week

1954 Results from Passenger and Freight Services

Large railways, year 1954
(Dollar items in thousands)

Road	Net railway operating income		Percent passenger deficit of freight net railway operating income		Operating ratio	
	Freight service	Passenger and allied services (deficit)	Freight service	Passenger and allied services	Freight service	Passenger and allied services
Eastern district						
Baltimore & Ohio	\$61,312	\$31,824	51.9	73.05	173.26	
Boston & Maine	18,403	15,159	82.4	62.06	168.71	
Central of New Jersey	10,745	6,998	65.1	65.46	161.39	
Del., Lacka. & Western	11,123	4,052	36.4	74.97	116.61	
Erie	21,726	9,070	41.7	74.71	153.40	
Lehigh Valley	10,369	4,459	43.0	76.14	154.61	
Long Island	1,764	3,664	207.7	68.87	96.22	
New York Central	71,488	38,806	54.3	74.34	113.80	
N. Y., C. & St. L.	21,619	2,954	13.7	68.15	163.90	
N. Y., N. H. & H.	19,433	10,145	52.2	68.65	96.89	
Pennsylvania	91,882	43,691	47.6	75.11	113.65	
Reading	20,285	6,833	33.7	71.03	153.77	
Wabash	16,263	4,126	25.4	72.03	128.33	
Poconchos region						
Chesapeake & Ohio	65,899	13,546	20.6	68.79	175.64	
Norfolk & Western	37,331	11,254	30.1	66.58	204.93	
Southern region						
Atlantic Coast Line	23,687	12,723	53.7	71.84	136.13	
Gulf, Mobile & Ohio	14,180	5,227	36.9	66.67	146.75	
Illinois Central	44,959	16,701	37.1	67.19	139.81	
Louisville & Nashville	40,992	17,070	41.6	72.37	156.13	
Seaboard Air Line	32,654	9,749	29.9	62.68	134.62	
Southern	47,902	13,345	27.9	61.68	131.07	
Western district						
A. T. & S. F. and affiliated companies	110,317	46,327	42.0	62.28	142.47	
Chicago & North Western	21,173	20,521	96.9	74.96	146.48	
Chicago, B. & Q.	48,776	21,032	43.1	69.06	140.66	
C., M., St. P. & P.	37,393	22,825	61.0	72.91	137.80	
Chic., R. I. & Pacific	36,333	15,579	42.9	63.71	137.22	
Denver & R. G. W.	18,492	4,422	23.9	58.53	173.62	
Great Northern	46,224	21,997	47.6	64.65	179.82	
M-K-T Lines	13,460	6,303	46.8	67.33	159.84	
Missouri Pacific	38,879	13,470	34.6	70.74	144.22	
Northern Pacific	31,818	16,358	51.4	72.75	182.22	
St. L.-San Francisco	20,446	9,280	45.4	71.12	164.98	
St. L. S. W. Lines	9,835	1,139	11.6	61.18	195.84	
Southern Pacific	93,282	51,141	54.8	67.89	169.10	
Texas & New Orleans	12,904	6,866	53.2	72.05	142.08	
Texas & Pacific	13,935	5,755	41.3	62.48	149.44	
Union Pac. & leased lines	82,911	52,957	63.9	61.59	174.85	

Passenger Service Losses in 1954

No large road had a net railway operating income from the service, and only New Haven and Long Island had operating ratios under 100

No large railroad had a net railway operating income from passenger-train services last year, and only the New Haven and the Long Island had passenger-service operating ratios under 100.

This was shown in the May issue of "Transport Economics," published by the Bureau of Transport Economics and Statistics of the ICC. The article also gave the 1954 passenger-service deficit, putting it at \$668.7 million, and thus confirming estimates that it would be in the neighborhood of \$665 million (*Railway Age*, May 9, page 5).

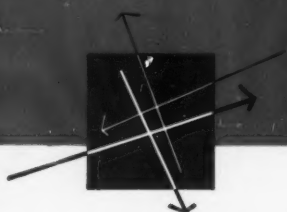
The 1953 passenger-service deficit was \$705 million, the highest on record.

A table, reproduced herewith, shows last year's financial results of passenger and freight services of large railroads.

Freight Car Loadings

Loadings of revenue freight in the week ended May 21 totaled 774,419 cars, the Association of American Railroads announced on May 26. This was (Continued on page 42)

These
cars can
operate
anywhere!



**Universally
Accepted**

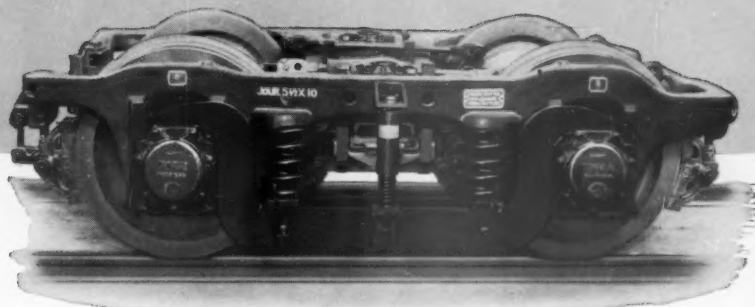
**for Interchange in all Passenger Trains
...They Have Commonwealth BX Trucks**

All types of commodity cars equipped with COMMONWEALTH BX Trucks are accepted without exception for operation in high speed passenger train service. These trucks assure safe, smooth performance at all speeds, greatly reduce damage to lading and car, and assure exceptionally economical performance.

The design of COMMONWEALTH BX Trucks incorporates many features of COMMON-

WEALTH passenger car trucks. These include equalization, swing-motion and one-piece cast steel truck frame with pedestals cast integral to insure perfect alignment of wheels and axles.

For every type of commodity car operating in high speed service, COMMONWEALTH BX Trucks offer outstanding advantages in economy and performance.



Commonwealth BX Truck
Furnished for clasp brakes or single shoe brakes



GENERAL STEEL CASTINGS

GRANITE CITY, ILL.

EDDYSTONE, PA.

FACTS ABOUT Exide®

IRONCLAD® DIESEL STARTING BATTERIES

EFFICIENT FREIGHT HANDLING STARTS WITH DEPENDABLE EXIDE-IRONCLADS!

SMOOTH, PROFITABLE FREIGHT MOVEMENTS DEPEND UPON EQUIPMENT ALWAYS READY TO ROLL. EXIDE-IRONCLAD DIESEL STARTING BATTERIES ASSURE QUICK BREAKAWAY AND FAST ACCELERATION OF ENGINE TO FIRING SPEED. THEY RESPOND INSTANTLY TO ALL POWER DEMANDS—LARGE OR SMALL...THEY PROVIDE AMPLE RESERVE POWER FOR POSITIVE OPERATION OF ALL CONTROL EQUIPMENT. LOW OPERATING COSTS AND EXCEPTIONALLY LONG LIFE MAKE EXIDE-IRONCLAD DIESEL STARTING BATTERIES, YOUR BEST POWER BUY—
AT ANY PRICE!



EXIDE-POWERED DOODLEBUG SPEEDS SHOP REPAIRS!

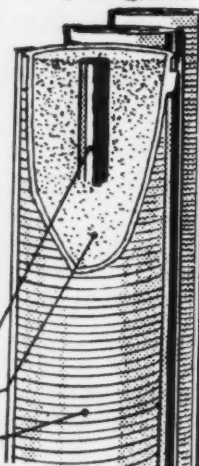
AT NEW YORK CENTRAL'S NILES, MICH., REPAIR SHOP THEY BUILT THIS IRONCLAD-POWERED "DOODLEBUG" TO MOVE SWITCHERS AROUND THE SHOP. THE "ENGINEER" KEEPS A FINGER ON THE CONTROL BUTTON—WALKS ALONGSIDE HIS POWERFUL, NOISELESS, FUMELESS HELPER. WHATEVER THE RAILROAD JOB (STARTING OR MOVING DIESELS), EXIDES CAN DO IT BETTER, MORE DEPENDABLY.

LET EXIDE HELP SOLVE YOUR DIESEL STARTING BATTERY PROBLEM. ① CALL AN EXIDE SALES ENGINEER FOR FULL DETAILS. ② WRITE FOR FORM 4843—ALL ABOUT MAINTAINING AND INSTALLING DIESEL STARTING BATTERIES.

TUBES OF POWER GIVE IRONCLADS LONGER SERVICE LIFE!

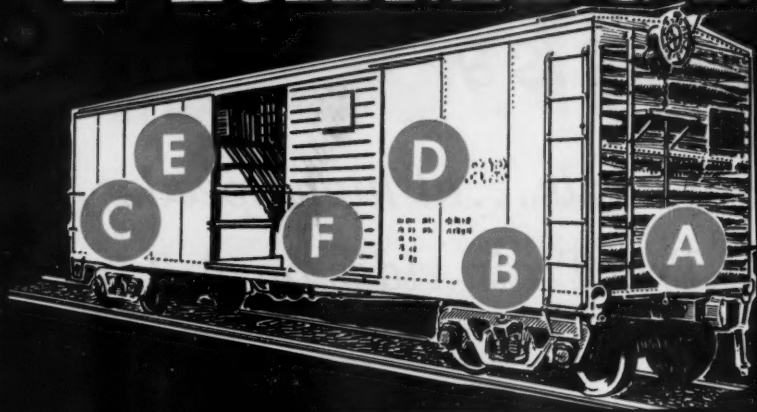
FINELY SLOTTED TUBES INSIDE AN IRONCLAD KEEP THE ACTIVE MATERIAL IN FIRM CONTACT WITH THE CONDUCTING GRIDS OF THE POSITIVE PLATE. THUS, THE GRID IS PROTECTED...THE ACTIVE MATERIAL IS KEPT IN CONTACT WITH THE GRID LONGER... *THE BATTERY'S WORK LIFE IS LENGTHENED.* THE SLOTTED TUBES ALSO EXPOSE MORE ACTIVE MATERIAL TO THE ELECTROLYTE... *FOR GREATER POWER!* RESULT: THE IRONCLAD'S ABILITY TO DO A DEPENDABLE JOB FOR A LONGER PERIOD OF TIME.

PROTECTED SILVIM CONDUCTING GRID
COMPRESSED ACTIVE MATERIAL
SLOTTED RETAINER TUBE



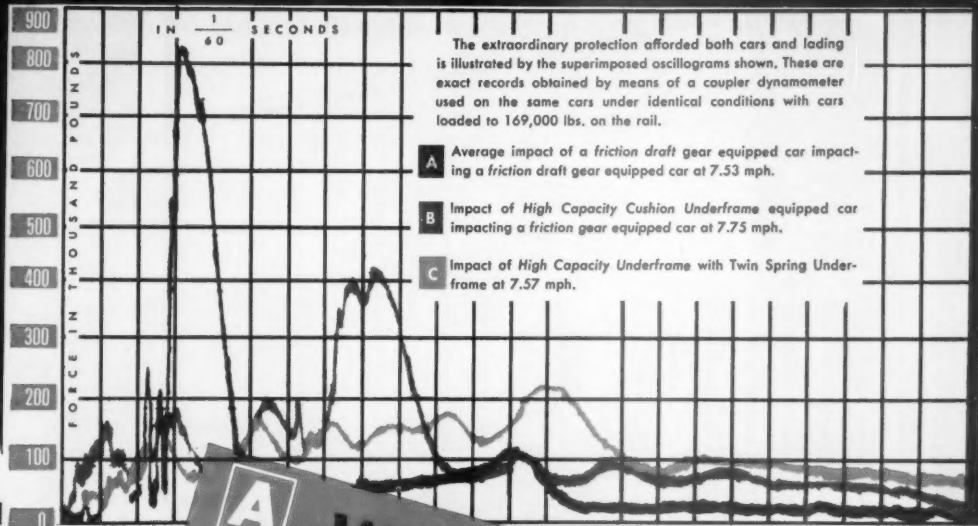
Exide INDUSTRIAL DIVISION, The Electric Storage Battery Company, Philadelphia 2, Pa.

'PREMIUM' CAR



...a
smooth
riding car!

- A** WAUGH CUSHION UNDERFRAME
- B** IMPROVED TRUCKS
- C** IMPROVED BEARINGS AND LUBRICATION
- D** WIDE DOORS
- E** LOAD RETAINERS
- F** EXTRA HEAVY SURFACED FLOOR



The extraordinary protection afforded both cars and lading is illustrated by the superimposed oscillograms shown. These are exact records obtained by means of a coupler dynamometer used on the same cars under identical conditions with cars loaded to 169,000 lbs. on the rail.

- A** Average impact of a friction draft gear equipped car impacting a friction draft gear equipped car at 7.53 mph.
- B** Impact of High Capacity Cushion Underframe equipped car impacting a friction gear equipped car at 7.75 mph.
- C** Impact of High Capacity Underframe with Twin Spring Underframe at 7.57 mph.

"Premium" signifies high cost. More important, it signifies performance and savings in both maintenance and lading-damage costs that far offset the premium. Actually, today no progressive railroad can afford *not* to supply shippers with "premium" cars. It is the car that will win shipper good-will, put premium traffic back on the rails, and enable railroads to earn more per ton mile.

It is the standard car of tomorrow proven and available now.

WAUGH

WAUGH EQUIPMENT COMPANY—420 LEXINGTON AVE., NEW YORK 17, N. Y.
NEW YORK • CHICAGO • ST. LOUIS • CANADIAN WAUGH EQUIPMENT COMPANY, MONTREAL

WAUGH

HIGH CAPACITY

100,000 CARS

Waugh Cushion Underframe

The only Cushion Underframe that eliminates free-slack, the Waugh High Capacity Cushion Underframe protects cars and lading at impact speeds far above the closing speed of conventional draft gears.

Studies indicate that this cushioning device will cut lading damage cost and car repair costs by half. Inquiries invited.

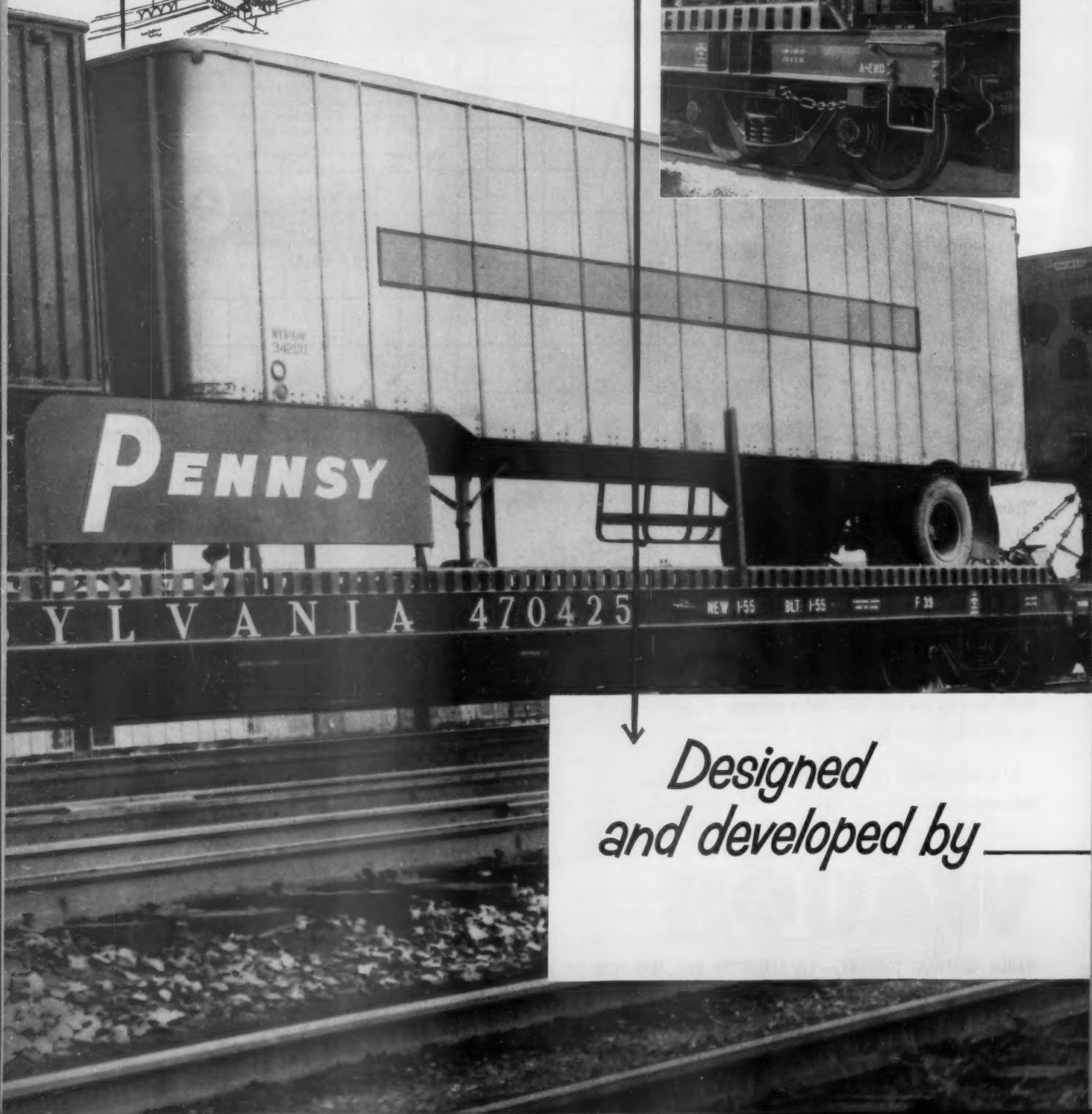
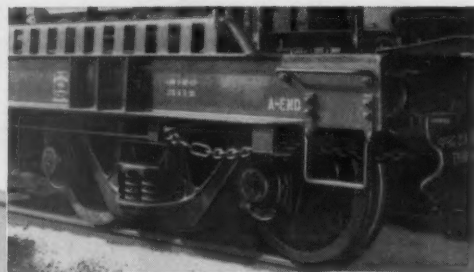
90,000

FT. LBS. of protection

*The shortest distance
between two points is a* **Safe,**

for smooth hauls...at high speeds...

the TrucTrain rides on A-3 trucks



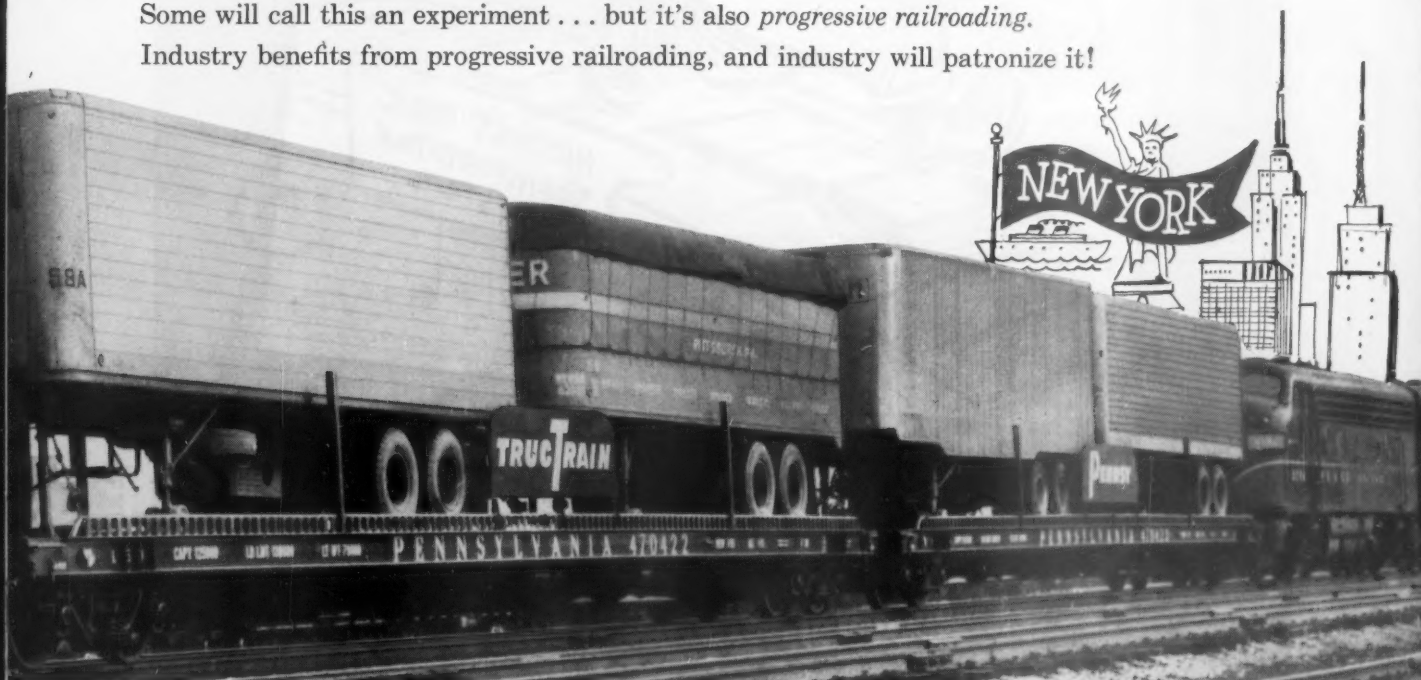
↓
*Designed
and developed by* _____

Smooth Ride

Keep your eye on a current example of railroad foresight
... the Pennsylvania Railroad in cooperation with the Rail-Trailer Company
has inaugurated the new TrucTrain service running daily from New York to Chicago.
It's the first long-distance service of its kind.

Two new, fast trains have just been put into service,
each train with a capacity of 100 loaded trailers. Brand-new, specially built
75-foot flat cars are in the consist, carrying two trailers per day.
Service between points: 29 hours flat!

Some will call this an experiment ... but it's also *progressive railroading*.
Industry benefits from progressive railroading, and industry will patronize it!



ASF

AMERICAN STEEL FOUNDRIES

410 N. Michigan Avenue, Chicago 11, Illinois

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

Leading the Way — Regardless!

By Hungerford



E Edgewater Steel Company

PITTSBURGH, PA.

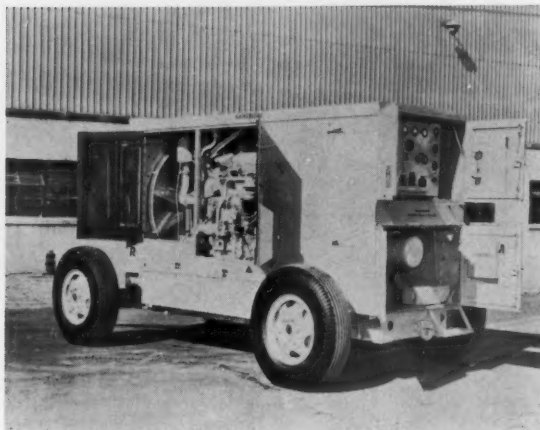
We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

Serving America's Railroads

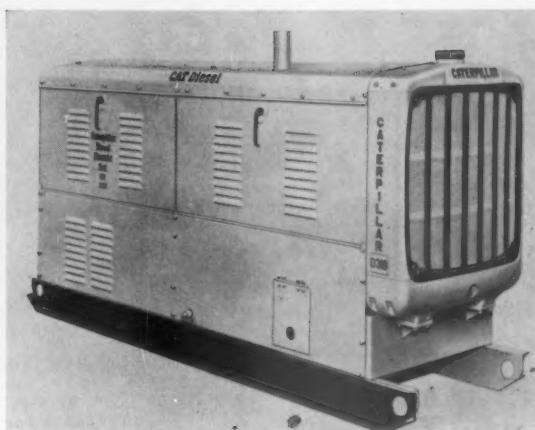
with
**ROLLED STEEL TIRES
ROLLED STEEL WHEELS
AND DRAFT GEARS**



What's New in Products



CATERPILLAR Model D364 trailer-mounted portable electric plant.



CATERPILLAR Model D318 skid-mounted diesel-electric set.

Portable Electric Plants

A line of 10 mobile and skid-mounted diesel-electric sets, patterned after the Caterpillar mobile electric set which has been used in several emergencies around the country, is now being offered.

The line includes four trailer-mounted units, Models D397, D386, D375 and D364, and five smaller units which are being offered as skid-mounted packages. The latter are Models D337, D326, D315, D318 and D311. The trailer-mounted units offer a wide range of power with output from 300 kw in the D397 down to 155 kw in the D364. These outputs are reportedly for continuous, non-stop, day-in, day-out duties. Each unit is available with a 60-cycle, 3-phase generator operating at 1,200 rpm or a 50-cycle, 3-phase generator operating at 1,000 rpm. A choice of eight different voltages is available, and, if desired, the generators can be made available in arrangement with other frequencies, phases and voltages.

The standard package for the trailer-mounted unit includes a standard electric-set engine; battery set with a 32-volt 15-amp-hr discharge rating, complete with cable; a charging generator with 32-volt, 15-amp output, equipped with a voltage regulator; close-regulating governor; lubrication system; radiator designed for a maximum air temperature of 110 deg and available with either a blower or suction fan; safety shutoffs for high-water temperature and low oil pressure; electric starting; and a fuel tank with a 275-gal capacity. The control panel com-

prises a dead front, floor-standing panel for control of the generator; a 3½-in. ammeter and an ammeter phase-selector switch; an exciter field rheostat; an automatic voltage regulator for single-unit operation; an air or oil three-pole, single-throw circuit breaker and necessary current and potential transformers.

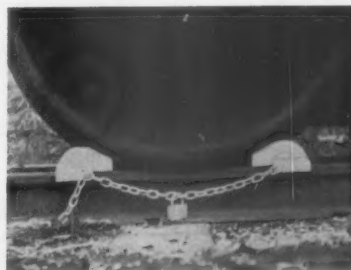
A terminal board is provided for connecting the load to the line leads. The enclosed trailer, on which the electric set is mounted, is approximately 25 ft long, 8 ft wide, and 12 ft 6 in. high. It has tandem axles with 8 wheels and tires and is equipped with double doors on either side. The four large trailer-mounted units are also available with steel-channel skid bases.

The five smaller skid-mounted units offer power ranges from 116-kw in the 1,200-rpm, 60-cycle D337, to 18 kw in the 1,000-rpm, 50-cycle D311 electric set. Each of the skid-mounted units is offered with a choice of 60-cycle or 50-cycle voltage and phase. Generators are either self-regulated or externally regulated. The standard package for the D337, D326, D315, D318, and D311 includes the following: A Caterpillar diesel engine; a battery set; a charging generator equipped with voltage regulator; a radiator with a choice of blower or suction fan; safety shut-off for low oil pressure and high-water temperature; electric starting; a governor for 3% speed regulation; a fuel tank; and a steel-channel base with skid ends.

The set is enclosed with a sheet-steel hood and hood doors. The control panel for single-unit operation is

equipped with an a-c ammeter, an ammeter phase-selector switch, an a-c voltmeter, water-temperature, oil-pressure and fuel-pressure gages, a battery-charging ammeter, and three current transformers. The externally regulated generator-control panel includes an exciter field rheostat and an automatic voltage regulator for single-unit operation. It also includes an enclosed terminal board with insulated bushing through the enclosure.

Optional equipment for the skid-mounted electric sets includes running gear consisting of a drawbar, axles, springs, wheels and tires; a three-pole single-throw air circuit breaker; and starting aids. Caterpillar Tractor Company, Peoria, Ill. ●



Wheel Chocks

The single wheel chock can replace the common practice of using wood wedges or makeshift stops for blocking car wheels. This 4-lb wedge-shaped metal device has flanges that fit down

More New Products

over both sides of the rail head to prevent its being accidentally unseated.

Three variations of the basic unit are available. The single-chain locking type is a single chock equipped with a chain that is passed under the rail and padlocked in place to prevent theft. The double-chain type has two chocks connected with a strong chain welded to each block. This arrangement prevents car movement in either direction. The slack is gathered in the chain and locked for theft prevention. A third type of stop, the double-spring tension type, has two chocks connected with a tie rod under strong spring tension. This assembly firmly hugs the car wheel and prevents any movement. It is adjustable for off-standard wheel sizes and weighs 12-lb. *Aldon Company, 3338 Ravenswood ave. Chicago 13 •*

125-HP Diesel Engine

A 125-hp four-cylinder, four-cycle, valve-in-head diesel engine, the D339, has been developed for industrial applications. The engine has 5 $\frac{3}{4}$ -in. bore, 8-in. stroke, and a piston displacement of 813 cu. in. Rated output is developed at 1,200 rpm. Smooth operation at this speed is due to the balancer. Two offset weights rotate at twice engine speed and are so timed that they eliminate the unbalanced forces inherent in four-cylinder engines.

Appearance is improved and head removal is simplified because most of the oil lines are inside the block. A pressure by-pass type oil pump is driven from the balancer drive. The fuel system uses low-cost paper filter elements. A high capacity water pump and large block water passages maintain proper cooling under all conditions.

The D339 governor gives ten per cent regulation between no load and full load over the entire speed range of the engine. Although there are innovations, many of the parts duplicate those used on other engines of this line.

Battery, air, and gasoline engine starting are available. *Caterpillar Tractor Company, Peoria 8, Ill. •*

Rust-Inhibiting Pigment

A rust-inhibiting aluminum pigment is now available. This development combines the effective hiding power, reflectivity and protection of aluminum pigment with the rust-inhibiting properties of strontium chromate pigment. With a single coat the benefits of a rust-inhibitive primer and a reflective top-coat reportedly are secured. *Reynolds Metals Company, 2500 S. Third st., Louisville, Ky. •*



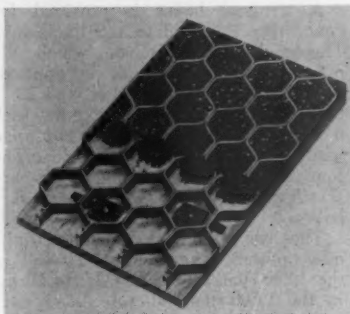
Improved Towing Tractor

Several new attachments and improvements have been incorporated in the four-wheel-drive Model TM Payloader towing tractor. Additions to the tractor include: pusher and towbar plates, single and dual railway couplers, an air compressor attachment, and a switchman's platform and catwalk. In addition, the improved unit features a hydraulically driven winch and four-wheel vacuum-booster brakes.

Dual railway couplings, one on each side of the rear plate, permit the tractor

to handle cars while straddling either rail. A long knuckle-type coupler is also available for use where the tractor has to pass over switch points, crossings and other irregularities. The new air compressor attachment provides air for emergency control of car brakes while being moved.

When the tractor is used for hauling trailers, connections can be furnished to permit operation of vacuum brakes on the trailer. The hydraulically driven winch attachment has a line-pull capacity of 30,000 lb. *Frank G. Hough Company, Libertyville, Ill. •*

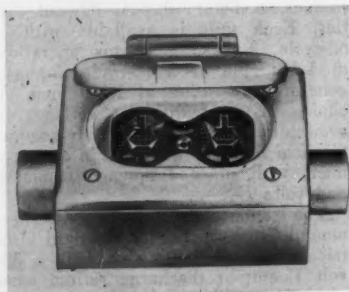


Steel Floor Armor

Hexteel has been developed to meet the increasing demand for a steel floor armor which can be used for resurfacing existing concrete or wood floors. Exposed steel surface is 18.15 sq in. per sq ft, and weight is 1.7 lb per sq ft.

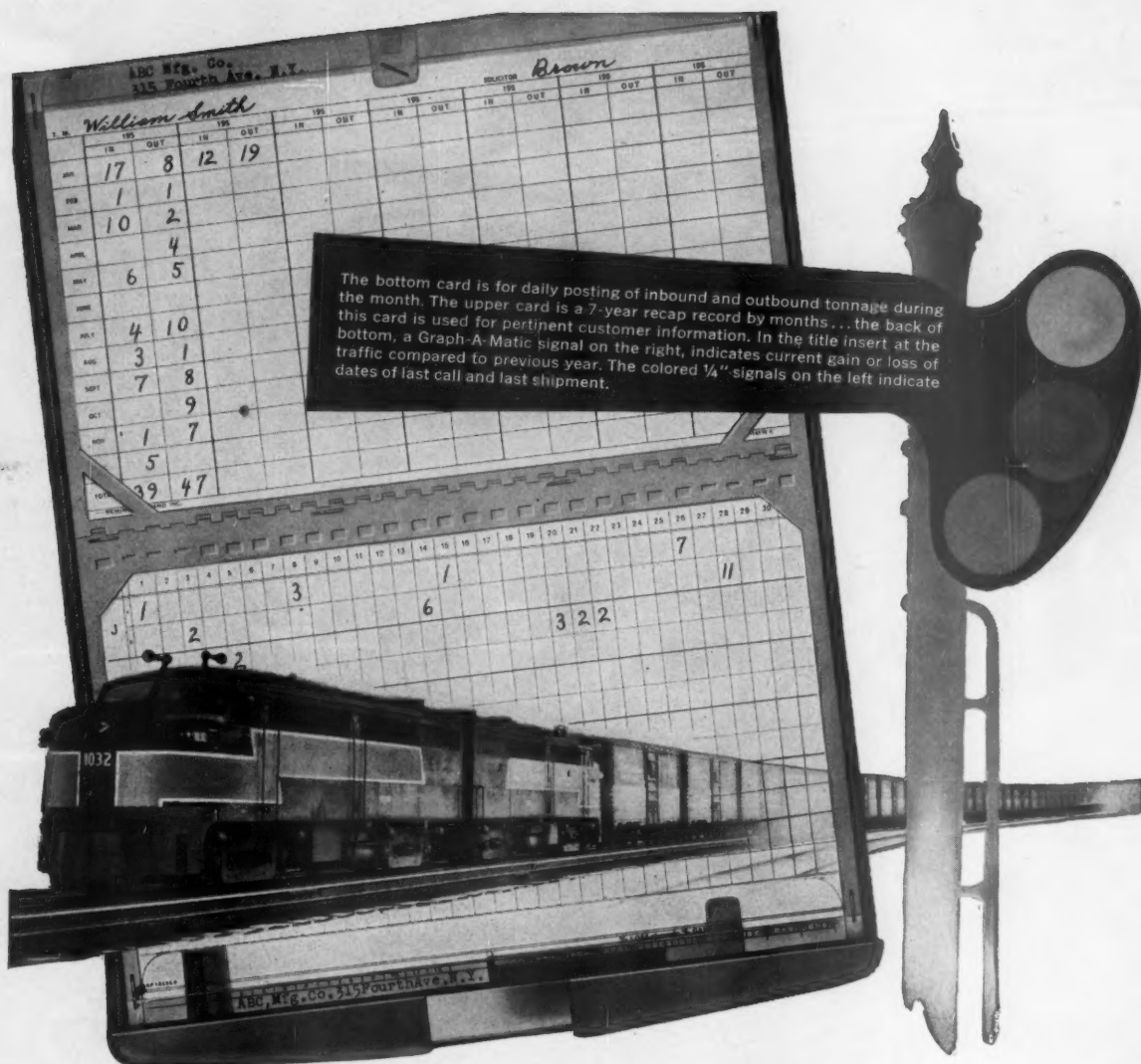
When filled with a hot or cold mastic, it is said to be suitable for resurfacing ramps, garages, factory aisles, runways or loading docks, where rough usage decreases the durability of the surface area. When installed, it is said to form a continuous steel floor armor which eliminates cracking, swelling and shrinking. Sides and ends of the

panels are easily locked together on the job site to form a continuous flooring. The flooring is furnished in $\frac{3}{8}$ -in. by 16-gage sheets. *Klemp Metal Grating Corporation, 6603 S. Melvina ave., Chicago 38 •*



Covered Receptacle

A weatherproof duplex attachment plug receptacle cover for FS and FD Pylets is now available. The materials and design have been chosen by the manufacturer to be suitable for outdoor installations under all weather conditions. *Pyle National Company, 1340 N. Kostner ave., Chicago 51 •*



TONNAGE SOLICITATION RECORD

now a "must" for the railroad industry

Progressive railroads are now modernizing their freight solicitation methods. Reason: The income derived from freight traffic measures the profitable management of a railroad. They've found that progress depends on getting, a) new customers, b) increasing business from current shippers, c) awakening dormant accounts.

* With this kind of thorough and continuous freight solicitation, former "on the cuff" records no longer suffice. Railway management is now obliged to concern itself with the entire expense incidental to solicitation. Questions they are asking themselves are:

- 1) Are calls on shippers and consignees being made?
- 2) Are these calls reflected in revenue tonnage?
- 3) Are we currently getting more or less business than last year?

The answers to these questions must be available *at a glance*

from up-to-the-minute information. That's why railroads are turning to Kardex Visible records — *everything at a glance*:

- 1) Whether tonnage is being secured
- 2) Date of latest movement
- 3) Date of last call of solicitor
- 4) Record of calls
- 5) Percentage of Gain or Loss over previous period.

All these facts are at finger tips with the simple Kardex Visible record.

Get full particulars on these modern efficient records for tonnage solicitation. Ask for MC701 (on loan) — "Traffic Department Records." Write Remington Rand Inc., Room 1596, 315 Fourth Avenue, New York 10, N. Y.

Remington Rand



THOROUGH CLEANING



1. To remove dirt and grime accumulations, locomotive assemblies are steam-cleaned, and, if necessary, shotblasted. This facilitates careful inspection and reconditioning.

COMPLETE REPAIR



2. Everything is checked. For example, if cracked welds are detected, they are chipped out, and the area re-welded. General Electric overhaul-rebuild service pays particular attention to detail.

In just 30 days at General Electric your locomotive is completely rebuilt

Your locomotive can obtain a "new life" of low-maintenance, high-efficiency operation by spending just 30 days at General Electric. That's all it takes for G-E factory-trained specialists to do the job, from wheels to whistle, whether you order a rebuild, a conversion, or a complete modernization. And a "new equipment" warranty covers all work done.

General Electric, with more than 50 years, experience in locomotive building, knows how to make your locomotive as "good as new," quickly and economically. For facts and prices on your locomotive, contact your nearest G-E Apparatus Sales office. Bulletin GEA-6139 describes this service. General Electric Company, Section 128-19, Schenectady 5, New York.

Progress Is Our Most Important Product

GENERAL  ELECTRIC

CONTROL SYSTEM RENEWED



- 3.** The entire control system is tested and repaired. Wiring, contact tips, and wearing parts are replaced as required. This inspection helps assure long service at minimum maintenance expense.

POWER EQUIPMENT OVERHAULED



- 4.** The diesel engine, generator, traction motors and auxiliary equipment are reconditioned so thoroughly you regain "original" performance. Many modernizations are also available.

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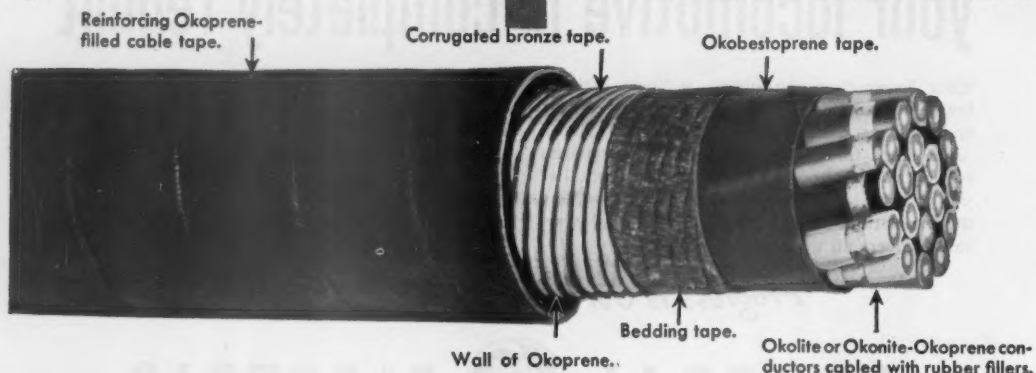
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- **HIGH COMPRESSIVE STRENGTH**
- **TERMITE-PROOF**
- **INSECT AND RODENT RESISTANT**
- **LIGHT WEIGHT**

New!

O K O N I T E
CM-OT
C A B L E

for direct burial installations



CM-OT is a light-weight, metallic-tape armored protective covering designed to sheath multi-conductor signal, control and

Unlike flat-taped constructions, this design can be bent around a radius close to that of its own diameter without buckling the metal tape and causing damage to

CONTROL SYSTEM RENEWED



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R A I L W A Y A G E F O R U M

Railroads for Defense

"The failure of our transportation plant can spell the difference between winning or losing the next war—regardless of the ability of the armed forces." This statement came, not from a civilian, but from Maj. Gen. Paul F. Yount, chief of transportation for the Army, in a talk about a year ago.

Railroads inherently are the most expandable of the transportation agencies because they can take on additional loads with relatively limited additions to fixed facilities, motive power and employees. Most other agencies of transportation can handle additional traffic only if they get proportionate additions in facilities and manpower.

However, able as the railroads are to expand their performance, their powers are not miraculous. As President J. M. Symes of the Pennsylvania recently pointed out, the railroads entered World War II with more unused capacity in plant than perhaps any business in the country. Their fleets of freight and passenger cars—the latter particularly—were greatly in excess of traffic requirements immediately before the defense build-up.

E. G. Plowman, vice-president-traffic, United States Steel Corporation, has issued warnings recently to the effect that the railroads' ability to absorb traffic may be considerably less in any future conflict. He asserts that the railroads' power

ternative yards and duplication of engine facilities and stores depots saved the German railroads from earlier collapse.

Mr. Symes—who, on the eve of World War II, took the view that the railroads could handle the expected loads of that conflict—now expresses the opinion that, given the requirements of another war, "we are not now prepared to do the kind of job we would be called upon to perform—and will not be prepared to do so if present policies with respect to transportation are continued." While many railroad men are more optimistic than Mr. Symes is about the railroads' ability to absorb increased traffic, none would deny that present policies are diminishing potential railroad hauling capacity. These "present policies" are the steady build-up that specialized, contract and private transportation are getting at the expense of the common carriers. This trend, if not arrested, will inevitably weaken the nation's defensive powers.

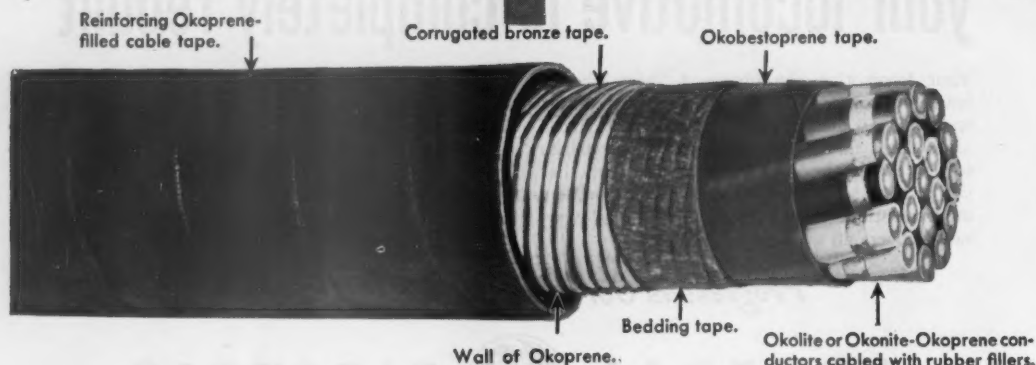
Another aspect of this disturbing trend is not so easy to recognize. It lies in the lack of coordination of the non-common carriers. The railroads are closely knit as a national system, and respond quickly to direction. They have uniform standards of design and performance. During World War II the Military Transportation Section of the AAR and the regional troop movement groups acted authoritatively for all the railroads. It was not necessary for the military authorities to deal with thousands and thousands of individuals—as would be required if primary reliance were placed on non-common carriers.

- ➔ **HIGH COMPRESSIVE STRENGTH**
- ➔ **TERMITE-PROOF**
- ➔ **INSECT AND RODENT RESISTANT**
- ➔ **LIGHT WEIGHT**

New!

OKONITE CM-OT C A B L E

for direct burial installations



CM-OT is a light-weight, metallic-tape armored protective covering designed to sheath multi-conductor signal, control and power cables directly buried in the earth. It consists of a 5-mil corrugated bronze tape and a wall of Okoprene reinforced with an Okoprene-filled cable tape.

The corrugated bronze tape provides extra strength in the composite sheath. The corrugations give exceptionally high compressive strength which is a prime consideration in direct burial applications. It constitutes an excellent termite and insect barrier and provides mechanical protection against attack by gophers, rodents and small animals. It contributes to the moisture resistance of the cable and prolongs its life in underground service.

This light-weight construction is much more flexible than the conventional metallic type parkway finish.

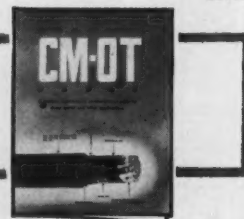
Unlike flat-taped constructions, this design can be bent around a radius close to that of its own diameter without buckling the metal tape and causing damage to the insulation.

At terminations the corrugated bronze tape is easily unwrapped. The small bending radius enables CM-OT sheathed cables to be trained in congested junction boxes or relay cases and allows simple terminations where space is restricted.

For prices or more detailed information contact The Okonite Company, Passaic, New Jersey.

26508

Write for Bulletin 1086 for more complete information.



OKONITE



insulated cables

Railroads for Defense

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However, able as the railroads are to expand their performance, their powers are not miraculous. As President J. M. Symes of the Pennsylvania recently pointed out, the railroads entered World War II with more unused capacity in plant than perhaps any business in the country. Their fleets of freight and passenger cars—the latter particularly—were greatly in excess of traffic requirements immediately before the defense build-up.

E. G. Plowman, vice-president-traffic, United States Steel Corporation, has issued warnings recently to the effect that the railroads' ability to absorb traffic may be considerably less in any future conflict. He asserts that the railroads' power to "accomplish this transportation miracle in World War II has derived from the reserve capacity of our railroad system, viewed as a whole. It is this reserve capacity that is being reduced by the decline in size of our railroads as compared with the growth of the U.S."

He points out that, in addition to relatively slow growth, consideration must be given to measures taken by the railroads to cut their costs and their plant—including the trend to a smaller fleet of passenger cars, fewer tracks and fewer locomotives. "In any future war emergency, this reduction in equipment, motive power and track will have to be accepted as a factor lessening to some degree railroad flexibility in the total transportation capacity."

The teams of American railroad experts who studied the effect of strategic bombing on Germany's railroads concluded that abundance of facilities was an important element in their ability to continue service under otherwise mortal blows. The multiplicity of optional routes, al-

ternative yards and duplication of engine facilities and stores depots saved the German railroads from earlier collapse.

Mr. Symes—who, on the eve of World War II, took the view that the railroads could handle the expected loads of that conflict—now expresses the opinion that, given the requirements of another war, "we are not now prepared to do the kind of job we would be called upon to perform—and will not be prepared to do so if present policies with respect to transportation are continued." While many railroad men are more optimistic than Mr. Symes is about the railroads' ability to absorb increased traffic, none would deny that present policies are diminishing potential railroad hauling capacity. These "present policies" are the steady build-up that specialized, contract and private transportation are getting at the expense of the common carriers. This trend, if not arrested, will inevitably weaken the nation's defensive powers.

Another aspect of this disturbing trend is not so easy to recognize. It lies in the lack of coordination of the non-common carriers. The railroads are closely knit as a national system, and respond quickly to direction. They have uniform standards of design and performance. During World War II the Military Transportation Section of the AAR and the regional troop movement groups acted authoritatively for all the railroads. It was not necessary for the military authorities to deal with thousands and thousands of individuals—as would be required if primary reliance were placed on non-common carriers.

"The relative decline in importance of the common carrier portion of the transportation industry will lessen transportation capability in any future mobilization," says Mr. Plowman. He recommends a number of measures for immediate consideration. One is that priority of access to scarce petroleum fuel be given to the common carriers, ahead of the rest of the transportation industry. Another proposal is that the government stockpile railroad rolling stock; and, at government expense, provide many small stockpiles of repair materials, widely distributed.

The need for expensive measures of this sort would obviously be greatly reduced if "commercial considerations" themselves were to justify a more capacious railroad plant. The best way to reverse the trend away from common carriers is to give them a modern, realistic status and cease denying them the right to utilize their inherent advantages in competition. Such treatment of these carriers would be good business, as well as sound defense strategy.



Car shop at DuBois, Pa., effectively utilizes a former steam locomotive shop. At the left center is the open-sided paint shop—only new building added in setting up for production car repairs.

B&O Weatherproofs Car Repairs

Car repair production line comes from the conversion of an abandoned steam locomotive shop

Production-line car repairs are the aim of the Baltimore & Ohio in its new DuBois car shop. Using the buildings of a former locomotive back shop, this B&O conversion has produced a layout that puts all car repair work at DuBois under roof. The new shop is designed to make both light and heavy car repairs.

Buildings for the new shop became available when B&O dieselization brought an end to locomotive repairs at DuBois, Pa. This installation was formerly the locomotive shop of the Buffalo, Rochester & Pittsburgh. After the BR&P was absorbed in 1932, the B&O continued to do locomotive work there. The last locomotive was turned out in May 1953, and the shop was closed.

Car repair work of the BR&P was also done at DuBois in a shop located at Brady street on the other side of town. The B&O has continued to operate this shop and gradually employment went from 200 to 500. Box cars, cabooses and work cars have always been repaired inside the shop building. Hoppers, flats and gondolas formerly were worked on adjacent outside tracks and frequently these repairs were curtailed by bad weather. Today the Brady Street shop works only on box cars and non-revenue equipment. The repair of gondolas, hopper and flat cars was moved to the rebuilt locomotive shop July 1, 1954. Work at both shops now proceeds under less crowded conditions and unhampered by weather.

The locomotive shop included a 30-track transverse type boiler and tank shop serviced by a transfer table. At right angles to the tank shop, and on the opposite side of the transfer table, was a three-track longitudinal style erecting shop. This building is 524 ft long, and formerly had machine bays down both sides. This building and the tank shop were equipped with a number

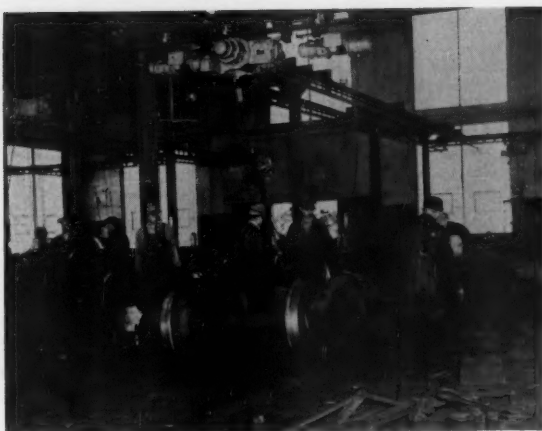
of overhead cranes. A carpenter shop, power plant, locker building engine house and store facilities are close by. All these facilities have a role in the new arrangement which now turns out rebuilt cars rather than locomotives.

In production-line car repair, the cars delivered to the inbound lead will be stripped ready for rebuilding. This work is done on the far side of the main tracks and the yard in a car department operation otherwise devoted to scrapping cars and locomotives. The original transfer table was too short to handle mill gondolas and during reconstruction the table and pit were extended so that 65-ft cars can be accommodated. Shop cars switched to the inbound lead are moved over the transfer table and into the shops with two tractors operated by car shop men. The tractors are equipped with chains and bumper plates for this work.

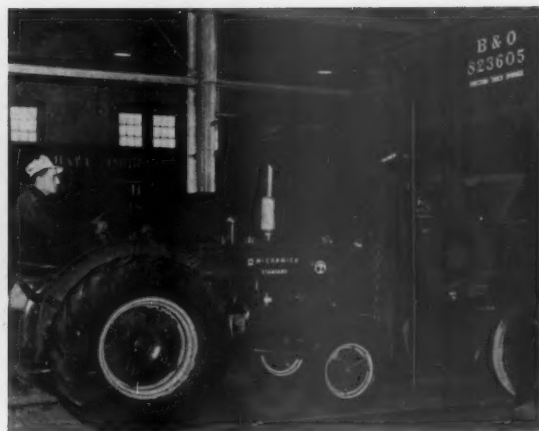
First Stop: Underframe Shop

The former boiler and tank building is now known as the underframe shop. Shopped cars are first brought into this building. As overhead cranes lift them from the trucks, car bodies are blocked up for underframe work. The cranes then move the trucks to the truck repair area. Trucks are torn down, inspected, and rebuilt. Repairs to the underframe, center plates, draft assemblies and train line are made while the body is blocked up. Rebuilt trucks are placed under the car and a tractor moves it across the transfer table and into the erecting shop for body work.

The underframe shop has a capacity of 31 cars. While steam locomotive repairs were being made, the 10 stalls at the east end of the building were extended toward the transfer table. This now provides capacity for two



Truck repair area in the underframe shop occupies one end of the former boiler and tank shop. Here a network of overhead electric hoists aids in the truck repair work.



Tractor moves a hopper into the erecting shop. From the inbound lead cars will be handled through their entire shopping either with tractors or electric car pullers.

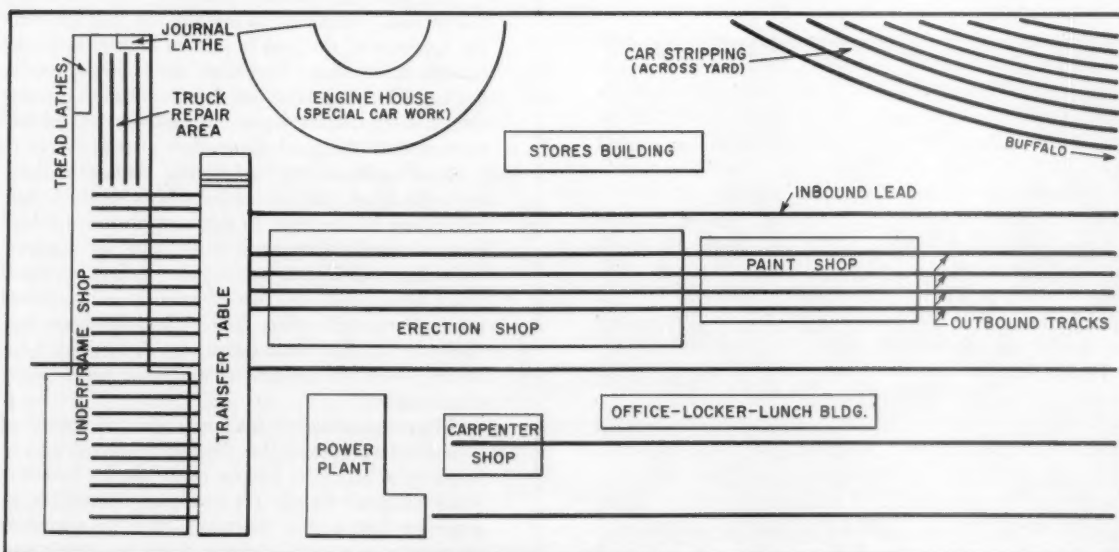
freight cars on each track. The width of the original bay allows only one car on each of the next 12 tracks. Because the track next to the extended section is used for material handling, the capacity of this section is 11 cars. Both the original bay and the extension have overhead cranes.

The section formerly occupied by the eight transverse tracks at the west end of the shop has been completely rebuilt for truck repairs. The transverse tracks have been replaced with four longitudinal tracks spaced across the bay. Cleveland tramrails and crossovers were installed over the tracks and machines in this section. Sixteen electric hoists with capacities from 1,000 to 3,000 lb operate over them. In addition to disassembly and assembly, the hoists service wheel and journal lathes at the end of the shop, and a welding booth which reclaims worn truck parts.

The recently rebuilt tread and journal lathes turn only



Electricity and air are supplied from covered pits at numerous locations along each side of the erecting shop tracks. This and use of overhead cranes leave floors open.



With a roof over every step in the car repair process, except the preliminary stripping, B&O has insured that bad weather no longer will delay car repairs. Available steam shop made this possible.

mounted wheel sets removed from cars. All new mounted wheel assemblies are received from the system wheel shop at Glenwood, ready for installation. DuBois has no boring or wheel mounting equipment. Axles are Magnaflexed when the wheels are turned.

Opposite the extended bay are blacksmith, pipe and fabrication shops and a welding booth where car parts are reclaimed. Center sills are spliced and center plates, strikers and draft castings are built up.

The erecting shop has the three original tracks. A fourth track was installed through the machine bay at the west side of the building. This track is serviced with a new five-ton overhead crane running a little over half the shop length. The three tracks in the original erecting bay are served by two 60-ton cranes for their entire length. Pits under these tracks have been filled and a concrete floor installed. Convenient compressed air and electric welding outlets have been installed in covered pits at numerous points along the erecting tracks. Each track has a capacity of 10 cars with adequate working room around the car at each station.

Four Car Pullers in Electric Shop

Along with the body, the brakes and safety appliances are completed in the erecting building. (Air brake components are serviced at the system brake shop at Cumberland.) The erecting shop has four electric car pullers. One is located between each pair of tracks at each end of the building and can move the line on a production repair set-up. In the east bay of the shop are the tool room, paint room, and brake section.

The only new building added during this conversion was the paint shop, adjacent to the erecting shop. It is an open-sided structure, 280-ft long, spanning the four tracks emerging from the erecting shop. It is equipped with 56 exhaust fans. Each track has a capacity of five cars under roof. Following spray painting, cars may be moved into the open for final stenciling and inspection. Cars from the Brady Street shop are now brought here for painting.

Fabricated material is stored at many points close to the underframe and erecting shops. Locomotive cranes and power trucks combine with the overhead cranes to do the materials handling job in the new shop. This results in a minimum of interference on the floor around the cars being worked. These cranes handle not only car material but tools and equipment.

The former carpenter shop was rearranged to turn out car lumber and includes inside lumber storage. Modern locker and lunch facilities were installed. The power plant is now equipped with two 600-hp gas-fired boilers. Even the vacant enginehouse is now used for special car repair work.

Production line facilities anticipate an output of 20 heavy car repairs daily. Light repairs—known by the B&O as reconditioning repairs—have occupied nearly all of the shop schedule. On reconditioning repairs a crew of nearly 400 turns out 45 open-top cars per day. The shop recently assembled 100 flat cars, using purchased underframes. This operation has been the only one so far in which a production line operation was achieved. Nine of these 53-ft, 6-in., 70-ton cars were assembled daily.

Benchmarks and Yardsticks

IMPROVEMENT in the way people live doesn't come by clinging stubbornly to traditional ways of doing things. It doesn't come, either, by carelessly discarding all the time-proven practices, developed by generations of experience. One of the advantages of maturity is its ability to grasp what is useful of the new, while holding resolutely onto that part of the old which is still valid.

There is an articulate English anthropologist named Jacquetta Hawkes who reveals many discerning things about people, in language intelligible and interesting to non-professionals. She has published a recent book entitled "Man on Earth," in which are set forth many helpful insights.

It is only our minds and the civilization they have built for us, she points out, that separate people from the life of raw nature. By our bodies alone, we are close relatives not only of the monkeys, but also of reptiles, fish, worms, and even lowlier forms of life. Our civilization does not consist, alone, in the things people do consciously—but perhaps even more in traditional ways of behaving that thousands of years of experience have made habitual and even instinctive.

"Revolutionaries, iconoclasts, and the eternally idealistic young of the species do not understand this perilous fragility of civilization," . . . writes Mrs. Hawkes. "They see the failings and injustices of human affairs and, instead of marveling that they are not worse . . . , believe if they overthrew all that has been achieved they could build it up again free from blemish."

She goes on to say that new ways of doing things must compete with the old, but that ignoring the heritage of the past is just as foolish as trying to stifle innovation. People get ahead in the world, not only in proportion as they lay hands on new things, but in equal degree, in ratio to their ability to hang onto the good things they already have.

Our civilized way of living is highly insecure. Imagine what would happen to us if all electric power plants were to cease operating; and all internal combustion engines were to be silenced. Quite likely half of us would starve before we could adapt ourselves to the loss of only these two recent products of civilization. The richer, the more specialized, the more wonderful our environment becomes, the more hazardous it is—the more easily destructible.

There probably isn't any greater enemy of dependable progress than the fellow who thinks he is going to establish Utopia overnight by invoking some panacea. People are imperfect (including always the first person singular), and the necessary primary step toward making them and their surroundings a little better is to recognize their built-in imperfectability. J.G.L.



FEATURES of the cars include: (1) Steel wainscoting; (2) Plywood sides and ends; (3) Lading strap anchors

and slots, and; (4) Nailable Steel Flooring. These plus such exterior features as roof louvers will give the Southern . . .

Premium Cars for General Service

Southern's order of 1,200 cars from Pullman-Standard stresses quality rather than minimum price—Designed to suit shippers' requirements; cars to require minimum of maintenance

A top-grade car rather than minimum price—that's what the Southern wanted and was willing to pay for in its latest order of box cars from Pullman-Standard. The road had two reasons for going to the expense of adding special features to these cars—(1) to provide the shipper with a better car for loading and carrying his merchandise; and (2) to give the railroad the advantages of a car that will require a minimum of light repairs and upgrading between general overhauls.

The size of the order—1,200 cars—will be enough to give a substantial boost to the general level of car quality throughout the Southern. The size is also an indication of the Southern's thinking about new freight cars. Added to this is the fact that the increase in availability and the savings in repair costs are expected largely to justify the higher cost of a better car.

Special Features

Basically the cars are 50½-ft 50-ton PS 1's to which a number of special features and refinements have been added. The lower portion of the inside lining is ¼-in.



LADING STRAP slots and other features were pointed out to shippers when the sample car was exhibited before the Southeast Advisory Board March 15-16.

steel plate to a height of 4-ft. This forms a surface that will stand bumping by lift trucks without damage to the sides and eliminates the need for frequent repairs to this portion of the lining. The steel plate is coated with neoprene (primer plus enough finish coats to give a total thickness of .015 in.) for protection against rust and corrosion, and also to add some resiliency. This, in conjunction with Great Lakes Steel's Nailable Steel Flooring gives a car that should withstand normal lift truck movements indefinitely.

The upper portion of the lining is $\frac{3}{4}$ -in. plywood. The plywood on the ends and sides is attached by 2-in. screws to three horizontal furring strips to eliminate the possibility of nailing damage and to simplify renewal of any sections that may become damaged in service.

Loads are secured by nailing to the floor and by strapping to the sides. This is done without damage to the car as a result of the steel floor and lading strap anchors and slots in the sides.

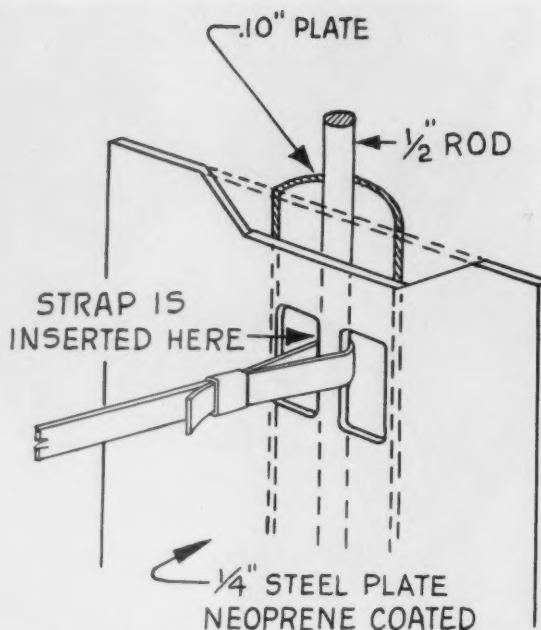
Lading Strap Anchors

Four vertical strips of Pullman-Standard lading strap anchors are installed in each quarter of the car. Each strip extends from the bottom to the top of the plywood lining and is of the latest design which incorporates an extra flange on the guide plate. This eliminates a previous possible sharp corner on the plate and reduces the risk of tearing sacks or cartons.

Loads can also be secured to the sides without damage to the car in the lower portion. The $\frac{1}{4}$ -in. steel plate in each half of each side contains 21 lading strap slots which serve the same function as the lading strap anchors in the upper part of the car. These slots, like the anchors above, can take two $1\frac{1}{4}$ -in. straps side by side.

Three roof louvers are installed at each end to reduce condensation within the car.

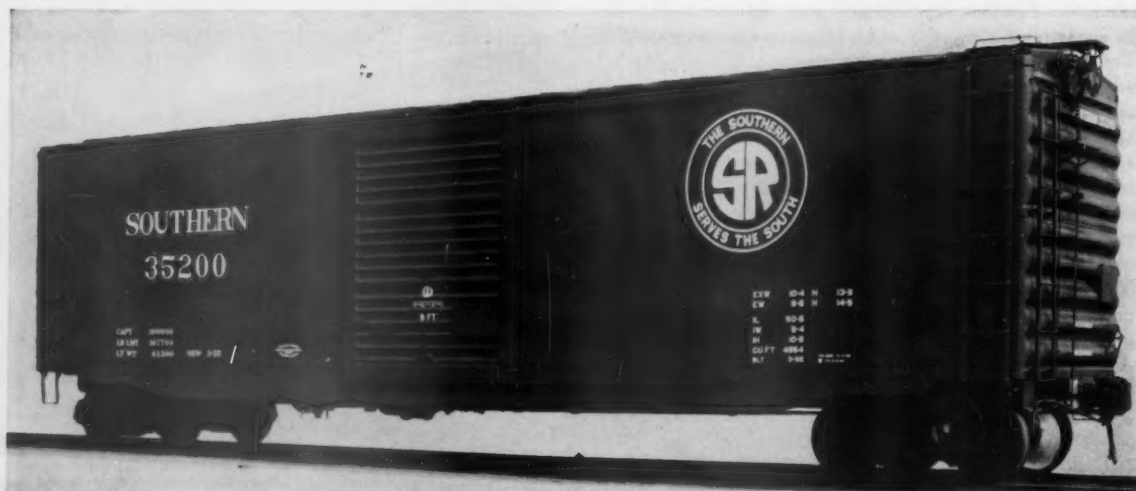
Because of the greater structural strength of the steel floor versus the conventional wood floor for which the PS-1 was designed, only two floor stringers instead of the usual three are incorporated between the center sill



LADING STRAP slots have a half-round section to feed out the strap as it is pushed through. Rod prevents kinking, aids in guiding strap.

and each side sill. The detailed construction differs somewhat between the cushion underframe and the regular underframe cars but both comprise 3-in. $7\frac{1}{2}$ -lb I-beams running most of the length of the car.

Trucks for the 1,000 cars with conventional underframes will have solid bearings; those for the cushion underframe cars will have Timken roller bearings. All trucks will be the spring plankless type with $5\frac{1}{2}$ -ft wheel base, 4 ft 2 in. side bearing centers and $5\frac{1}{2}$ in. by 10 in. axles. Those for roller bearings will have separable journal boxes. The plain bearing trucks will have integral boxes with waste retainer ribs welded in place.



SINGLE 9-FT doors facilitate the lift truck movement that the interior is designed to withstand.



"Bridges constitute a major problem . . . There, too, the effects of deferred maintenance are apparent."

ON THE PACIFIC OF MEXICO, THEY'RE . . .

Making an Old Railroad New

Heavy rail, complete dieselization, mechanized track maintenance and modern communications facilities will enable line to handle growing traffic

The Pacific Railroad of Mexico is the main artery of a long narrow strip of land. Rainfall is sparse along most of its length, except the southernmost mountainous section. Still, more than eleven important rivers and several smaller streams that comb the land are being converted into promoters of agricultural and industrial richness through irrigation and generation of electrical power.

For several years the railroad has been unable to

handle promptly and efficiently the growing volumes of freight, and shippers not infrequently have complained about the lack of dependable service. Rehabilitation of the railroad has been predicated upon the requirements of a fast growing agricultural area, producing large surpluses of staple products, mainly wheat, corn, rice, cotton, sesame, fruits and vegetables, and linseed.

Once the property was bought from the Southern



"... More than eleven important rivers and several smaller streams . . . are being converted into promoters of agricultural and industrial richness through irrigation and generation of electrical power."

Pacific Company, the Mexican government began the task of reconstructing the track and structures, and modernizing the rolling equipment. About 295,000,000 pesos have been invested in the property since April 1, 1952, when the present company took over the operation of the railroad. This investment has been financed mainly by appropriations of the Mexican government, a \$5 million loan of the Export-Import Bank of Washington of August 1952, a \$5 million loan of Bank of America of May 1953, and finally from advances made by Nacional Financiera, a governmental financial institution of Mexico, prior to the effectiveness of a loan by the International Bank for Reconstruction and Development on August 24, 1954.

The IBRD loan calls for the equivalent of \$61 million U.S. dollars in various currencies to be used in purchasing materials and equipment in foreign countries for specific purposes agreed upon between the bank and the railroad. Outstanding amounts of the loan will earn interest at the rate of 4½% per annum. The loan is to be repaid in an 11-year period beginning June 1, 1959.

Broadly speaking, \$26 million will be used for the purchase of 175,000 tons of 100-lb rail and fittings, to lay 1,600 kilometers of track; \$13,800,000 for the purchase of 4,000,000 ties; \$10,150,000 for the purchase of 64 diesel locomotives and spare parts; \$3,500,000 for 500 new box cars and related items; and \$3,050,000 for ballast cars, communications equipment and materials and miscellaneous purchases or services. The remaining \$5,000,000 is at this stage unallocated and may be used for purposes upon which the bank and the railroad will later agree.

The \$61 million loan of the World Bank will absorb

foreign purchases covered by the Bank of America loan, which amounted to slightly under \$4 million, and the ad interim loan, which Nacional Financiera made to the railroad as a stop-gap to allow the rehabilitation of the railroad to continue after the first two foreign loans had been used.

The outstanding accomplishments attained up to the end of 1954 were:

Reinforcement of embankments along 286 km of the line; laying of 645,000 cu meters of ballast; laying of 1,522,146 ties, of which 1,145,435 were treated, and 376,711 untreated hardwood; laying of 86 km of track with new 112.3 lb per yard rail from Culiacán south; construction of a diesel shop at Guadalajara and a diesel running repair enginehouse at Culiacán, as well as construction of diesel fuel plants at various terminals; purchase of equipment for a tie treating plant; construction of section living quarters for trackmen at various locations; purchase of 25 1,600-hp diesel locomotives built by American Locomotive-General Electric; purchase of 684 50-ton PS-1 box cars, built by Pullman-Standard; and purchase of 60 all-steel ballast hoppers built by Magor Car Export Corporation.

The Task Ahead

At present a clean-cut program has been drawn up for the next four years.

As far as 1955 is concerned, improvements and purchases will amount to 316,600,000 pesos, of which 243,000,000 pesos (\$19,500,000 dollars U. S. currency) will be financed through the World Bank loan, and 73,600,000 pesos will be financed through appropriations of the Mexican government.

In December 1952 the relaying of track with new 112-lb rail began southward from Culiacán (km 956 south from Nogales) and reached km 1042. New rail laying stopped at that point as no financing was available until the World Bank loan appeared in the picture. After very serious study and consultation the 100-lb section was selected as adequate.

The first boat, carrying 7,292 net tons of rail and 2,813 net tons of fittings, rolled by Dominion Steel & Coal Corporation of Canada, left Sidney, N.S., December 15, 1954, and arrived at Mazatlán early in 1955. Eight more boatloads are scheduled to arrive at Mazatlán during 1955 with 55,000 tons of rail and 35,000 tons of rail fittings. Rail laying is scheduled to proceed southward at the rate of 40 km per month, almost reaching Roseta by the end of October. From Roseta south, where a 43-km 2.4% grade begins, rail is 90-lb. As rail on the whole stretch from Roseta to Guadalajara is in less critical condition than on the rest of the main line, the steel gang will move back from Roseta to lay rail from Culiacán north. Altogether, 440 km will be covered in 1955.

The whole job is planned to be carried through in three and a half years' time.

The organization of the working force has been revamped to provide greater efficiency through increased mechanization. Three big extra gangs (80 men each) will be employed in replacing ties, spreading ballast and raising track. The steel gang, made up of 129 men, will be organized and equipped to relay 2 km of track

per working day. In addition to their regular maintenance work, the permanent section gangs will take part in replacing ties.

Much additional work must be done prior to the change of rail—such as widening embankments, tie replacing, ballasting and raising—or more or less independently, such as bridge work.

One million treated ties are scheduled to be laid on the main line during 1955. It is estimated that by the year end 2,513,000 new ties will have been laid since the present company took over the property, i.e. an 80% renewal. The four-year program beginning with 1955 envisages practically complete substitution of ties on the main line and very substantial renewals in branches and secondary work.

Ballast laying will proceed from several ballast pits; changes being made to insure that work-train cost and efficiency are maintained at the best possible level compatible with the availability of ballast pits. Four or five pits will be in operation throughout 1955. The most common material is river gravel, because of its availability at low cost. Three hundred and fourteen thousand cubic meters of ballast are scheduled to be laid. Equipment available includes 60 new 70-ton hoppers bought in 1954 from Magor Car Corporation and 60 all-steel gondolas bought second hand in 1952.

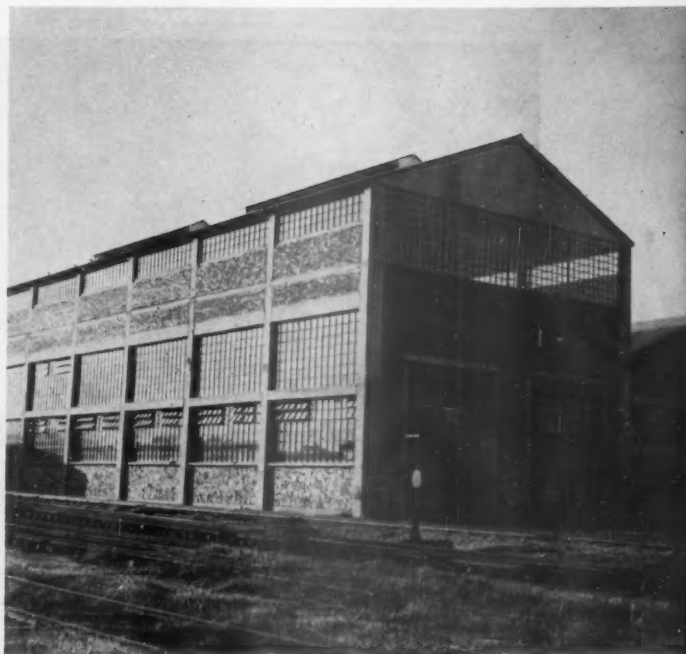
Ahead of the ballast and rail laying, embankment widening is proceeding along two fronts at a variable pace, according to the season. It is estimated that 394 km will be added during 1955 to the 286 km widened in 1952. A 20-ft width at the top is the standard. This part of the work will be carried out through independent contractors.

Big Bridge Replacement Job

Bridges constitute a major problem on the Pacific Railroad. There, too, the effects of deferred maintenance are apparent. The railroad has 1,089 wooden "temporary" bridges, many of them in such poor condition that they must be protected through 10 km-per-hour slow orders. The rehabilitation plan calls for totally substituting material in bad condition in the four-year period. During 1955, 1,800,000 ft b.m. of bridge timber will be bought and applied, plus 30,000 ft of new piling and 600,000 ft b.m. in bridge ties. Painting of steel bridges will be resumed. Furthermore, the reconstruction of the Sinaloa river bridge at Bamoa is also scheduled for 1955. This bridge was partially washed out by a flood in December 1945, and since then the track has incorporated a shoefly that connects the southern half of the bridge with the out-of-line butt of track in the north bank.

The Pacific Railroad at present operates 25 new 1,600-hp diesel locomotives and 83 old steam units. Dieselization is scheduled to advance as follows: 12 units in 1955—1,600-hp road units and six 900-hp yard units—17 units in 1956 and 10 in 1957, thus completing the changeover to diesels. Since January 1955, all main line trains are dieselized, except a small number of local freight and work trains. Dieselization of yard and work trains will begin with the arrival during the summer of the six 900-hp units.

The 500 PS-1 box cars, purchased late in 1953 and



"The outstanding accomplishments attained up to the end of 1954 [included]: . . . construction of a diesel shop at Guadalajara . . ."

during 1954, will be covered by the World Bank loan within the backlog of \$11 million of expenditures prior to the effectiveness of the loan, which the bank has agreed to accept. The same applies to the 60 Magor ballast hoppers.

Communications Being Improved

The present communications facilities consist of two iron telegraph wires. The wires, poles and crossarms are in very poor condition. The rehabilitation program envisages the substitution of scrap rail poles for the present wooden poles, and substitution of eight-pin crossarms. A four-channel carrier system using an aluminum cable will permit expediting train dispatching through a selective telephone system. Automatic switchboards will be installed at terminals, to provide telephone service to and from every terminal, from and to main offices and division headquarters. Long distance communication will be secured through automatic dialing. There will be Teletype service between terminals and the respective divisional headquarters, and between the latter and the Guadalajara main office. One of the present telegraph wires will be reconstructed and maintained for local service and standby protection.

Six radio stations are already in operation, located at each one of the main terminals and at the railroad headquarters.

Other important items of expenditure in the program for 1955 are the building of living quarters for section men; purchase of roadway machines to permit the accomplishment of the track program; the purchase of shop equipment, and finally the expenditures which will be incurred in the intensive repair (reconstruction) of box cars and camp cars.



COMPRISING eight special grinder cars and a power car, the train is moved along at about 2 mph. Four grinder cars have control cabs, while others are remotely controlled from cab on adjacent car.

Specially Designed Train ...



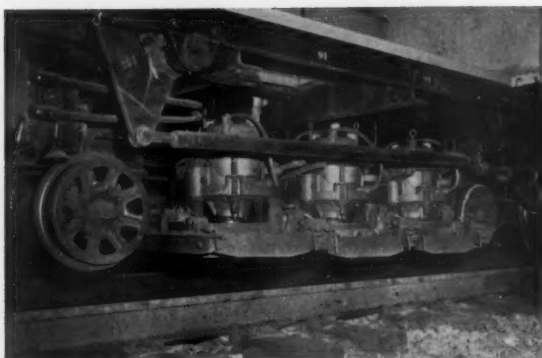
GRINDING is done by abrasive wheels powered by electric motors mounted on special "pony" trucks. Each car has two pony trucks equipped with three motors over each rail. The motors are tipped at ...



... ANGLES from vertical to provide various grinding planes on rail surface for contour.

... Grinds Rail Out of Face

Nine-car outfit removes rail corrugations and other minor running surface defects, giving a smoother ride for trains and reducing rail, joint and overall track maintenance



"PONY" TRUCKS are raised from rail by pneumatic cylinders, then locked in place with pins and levers, when not in use. Cars have no speed restriction with trucks up.

High-speed train vibration caused by rough rail surfaces can now be eliminated.

An all-new train, comprising special cars for grinding the surfaces of rails out of face, is now in service. The train has already been used for extensive rail-grinding projects on the Lackawanna and Lehigh Valley. Several other roads are currently contemplating its use.

Designed especially for removing corrugations and other minor imperfections of the running surface of rail, the train was built and is operated by Frank Speno Railroad Ballast Cleaning Company, Ithaca, N.Y., a firm well-known for its work in the ballast-cleaning field. It is being made available to railroads on a contractual basis for specific periods of operation. Charges are based on an hourly rate.

The train is composed of eight specially built grinder cars and an EMD power car. The grinder cars are an adaptation of similar cars developed by the Pennsylvania, and used on that road for a number of years.

Need for Equipment Was Apparent

The successful operation of the PRR rail grinder cars, and the apparent need for additional equipment of this type, indicated to the Speno Company that there was a market for commercial development of similar equipment. It was evident that the expense (about \$1½-million) of building a complete grinder train was the principal deterrent to more widespread use of rail-grinding practice. Frank Speno, Jr., president of the Speno Company, felt that the development of such a train by his company for rental to the railroads offered a logical solution to the problem.

The new train went into service early in March on the Lackawanna. When a reporter visited the train on that road in late March, it was completing out-of-face grinding operations on about 350 miles of main-line track. This work was carried out in only 24 days of operation, or an average of about 14½ miles per day.

Most of the grinding on the Lackawanna was done on the road's multiple-track Hoboken-Buffalo line where traffic density is extremely heavy. The train was kept on duty for an average of about 11 hours each day; however, due to the heavy traffic, it was able to spend only about 7 hours per day actually working. The remainder of the time was consumed in going to and from

HISTORY OF RAIL GRINDING

During the 1930's several attempts were made towards developing an economical means of removing troublesome defects, such as corrugations, from the running surfaces of rails.

One of the first pieces of equipment used in this country for removing surface irregularities, out of face, was developed on the Lehigh Valley. Essentially a rebuilt tank car, the unit employed fixed grinding stones, which were pressed firmly against the rail as the car was pulled back and forth over the track at high speeds. Cooling water from the tank was sprayed on the stones continuously during operations.

In the years that followed other attempts were made to build similar equipment using the same general principle of operation. However, widespread use of grinder cars of this type never materialized.

Then in 1937 the Pennsylvania designed and built a grinder car operating on an entirely different principle. Moving at low speed along the track, the car employed a series of power-driven grit wheels, mounted on special "pony" trucks, as the grinding agency. At first the car was operated as a single unit and was moved back and forth over a stretch of track until sufficient metal was removed. Later on, additional cars were built and used in tandem so as to reduce the number of passes required.

These cars are still in use on the PRR and, although somewhat different in overall appearance and specific design details, were used as a pattern by the Speno Company in designing its new rail grinder trains. The basic PRR design was re-engineered for the Speno Company by the Holden Engineering Company, Summit, N.J. New and improved technological developments were incorporated into the new design, to improve the operation of the cars.

tie-up points and in clearing trains which could not be detoured. The cost of grinding, including rental of the equipment, personnel for operating the cars and the work train to handle the equipment, amounted to less than \$100 per mile of track.

Grinding Not New to DL&W

The practice of rail grinding out-of-face is not new to the Lackawanna since that road is among those which have used the Pennsylvania grinder cars during recent years. In the future the road intends to continue a program of rail grinding as necessity requires.

The Lackawanna plans not only to grind old rail but to grind newly laid rail as well. The purpose in grinding the new rail, according to the road's engineering officers, would be to reduce variations in rail height at joints due to extremes of mill tolerance and to remove mill scale and other minor irregularities in the surface before they have a chance to develop to a more serious degree.

Some of the advantages claimed for rail grinding are: Elimination of irregularities which cause vibration in locomotives and rolling stock and increase the maintenance of such equipment; a smoother ride for passenger trains; reduced rail and joint maintenance; and reduced track maintenance effected by the reduction of vibration.

Power Supply and Distribution . . .



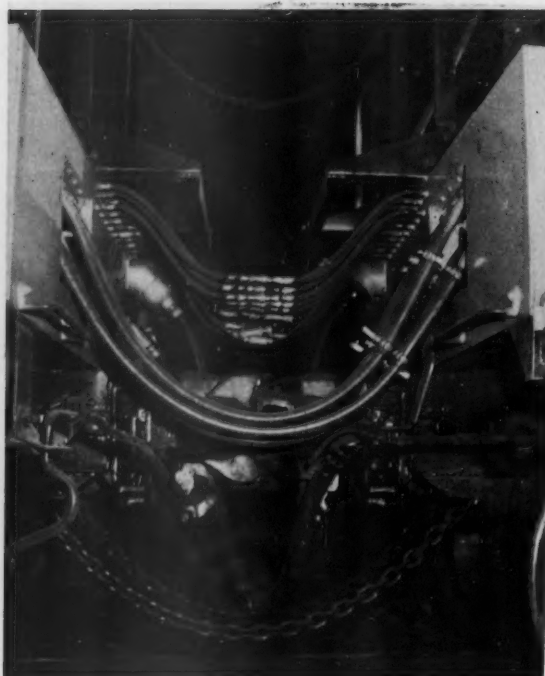
POWER CAR, supplied by EMD, furnishes electricity and air for grinding. It is at one end of train.

Furthermore, Mr. Speno foresees, through the employment of a cycled program of rail grinding, the possibility of adding considerably to the service life of rail. His reasoning is that, if surface imperfections can be eliminated, or at least held in check so that their development is not so rapid, the life of rail would be extended indefinitely, the actual wear on the head then being the only critical factor.

Cars Assembled in Speno's Plant

The eight special grinder cars were assembled in Speno's plant at Syracuse, N. Y. The car underframes and trucks were furnished by the International Steel Company, Evansville, Ind. Each car is fitted with two specially built "pony" trucks furnished by Fairmont Railway Motors, Inc. These trucks are suspended from the underframe of the cars and are used to support the grinder motors. There are six Reliance, 7½-hp, 3,600-rpm, 440-volt motors mounted on each truck, three over each rail. The motors are arranged in a straight line over the rail but can be tipped at angles to provide various grinding planes on the rail-head surface. Each motor powers a 10-in., by 1¾-in., steel-back grinding wheel.

The pony trucks can be raised and lowered from the rails by pneumatic cylinders. When not in operation, the trucks are raised and locked into position by pins and toggle levers. The grinder motors are each mounted in a cradle on the trucks and can move up or down in this cradle to give the desired pressure of the stone against the rail surface. Constant pressure is maintained by two hydraulic-pneumatic cylinders, one on each side of the motor. Each motor weighs about 300 lb, and



AIR and electricity are carried from car to car by flexible hoses and cables.

if the motors were to bear with the full force of their weight on the rail, the pressure would be too great; therefore, the cylinders on each side of the motor push upward to carry a portion of the motor weight and obtain the correct pressure of the stone against the rail.

During operation the pneumatic and hydraulic controls for both the pony trucks and the grinder motors are handled by four operators. Every other one of the eight grinder cars is fitted with a cab at one end of the car. A control panel in each cab provides pneumatic and hydraulic controls for raising and lowering the trucks and motors, and electrical-circuit controls. Each operator regulates the grinder assemblies on a cab-equipped grinder car as well as the "idler" car immediately ahead, which has no cab.

Maintaining Correct Head Contour

To maintain the desired head radius when grinding, the six grinder motors over each rail on each car are set at different angles with reference to the vertical plane of the rail.

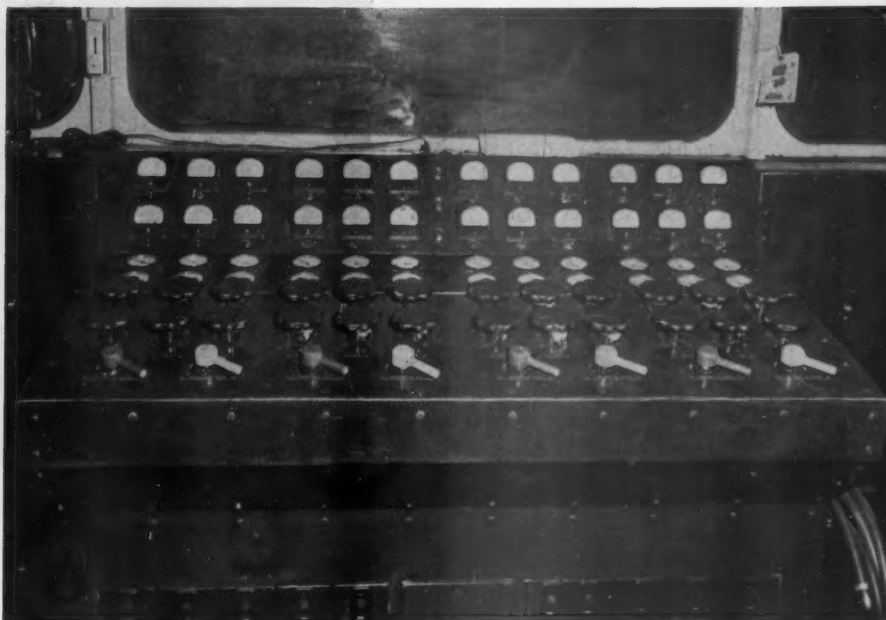
The motor grinding nearest the gage side of the rail is tilted at the greatest angle from vertical and the motor grinding at the point nearest to the center of the rail head is in a vertical position. The other four motors are tilted at angles between these two extremes. Hand cranks are provided on the grinding unit to adjust them to the desired angle. With this arrangement on each car, and with a total of eight cars, there are throughout the train a total of eight motors on each rail which are grinding in the same plane.

The total metal removed from the rail surface as the train passes is somewhere between 0.008 and 0.10 in.

Control and Communications Systems...



INSTRUCTIONS to train personnel are relayed over paging system.



CONTROLS for operating 24 grinder motors and their truck assemblies are installed in each operator cab.

Two general types of grinding stones are used, one with coarse grit for removing metal rapidly, and the other with a fine grit for finishing. To permit the train to be operated in either direction, the coarse-grit stones are located on the center grinding cars while the cars on each end are fitted with the finer finishing stones.

The train is moved along at about 2 mph, which has been found through past experience to be the most effective speed. At higher speeds insufficient metal is removed to eliminate imperfections in the rail surface, and at lower speeds too much metal is removed. The hydraulic and pneumatic control mechanisms are all set up so that, if the speed of the train falls below 0.9 mph, the grinder wheels are automatically lifted from the rail.

This is a safety precaution to prevent the stones from actually grinding a hole in the rail head in case the train is stopped without warning. To permit the locomotive engineer to maintain the desired 2-mph speed, a special portable speedometer, calibrated from 0 to 5 mph, is installed in the locomotive cab. The speedometer is activated by a tachometer generator attached to a "pony" truck of the grinder car located nearest the engine.

In addition to the four operators stationed in the control cabs, two operators are on duty on the ground at all times. These men walk along the train looking for any mechanical troubles and keep an eye out for road crossings, switches, or rail lubricators, and give signals for raising and lowering grinder motors when passing over these obstructions. These men also "lock up" the grinder assemblies when grinding operations are to be suspended for any reason. The railroad furnishes one man, in addition to the train crew, for supervision of

the grinding operations. All other personnel are furnished by the Speno Company.

Electrical power for operating the grinder motors, as well as compressed air for operation of the various pneumatic mechanisms, is furnished by the EMD power car. This car, which looks very much like a "B" road-locomotive unit, contains a 12-cylinder diesel engine which powers a 440-volt, 750-kva main generator, a 440-volt, 25-kva auxiliary generator and a Gardner-Denver air compressor. One section of the car is devoted entirely to electrical control panels.

The power car is situated at one end of the string of grinder cars and electrical power cables and compressed air lines extend through the entire train. Connections between cars are provided by flexible cables and hoses. Electricity and air from the main lines extending to the power car are supplied directly to the control cabs on each of the four control cars, then distributed to the grinder assemblies on the cab cars and to the remotely-controlled "idler" cars ahead. Electrical and pneumatic connections between the cab cars and their respective "idler" cars are also provided by flexible cables and hoses.

The entire train, including the engine and caboose, is equipped with a paging-speaker system with microphones and speakers mounted inside each control cab, and speakers on the outside wall of each cab. The caboose and engine are each supplied with a portable talk-back speaker unit. Instructions to the various grinder-car operators and train and engine crews and warnings of approaching trains, obstructions and the like are relayed over the speaker system. For night operations adjustable floodlights are mounted on both ends of each cab.

Figures of the Week

(Continued from page 16)

an increase of 17,086 cars, or 2.3%, compared with the previous week; an increase of 92,452 cars, or 1.3%, compared with the corresponding week last year; and an increase of 4,801 cars, or 0.6%, compared with the equivalent 1953 week.

Loadings of revenue freight for the week ended May 14 totaled 757,333 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, May 14			
District	1955	1954	1953
Eastern	128,488	114,419	136,741
Alleghany	152,599	123,186	158,546
Poconchos	60,920	47,818	55,934
Southern	118,137	115,960	129,161
Northwestern ..	121,352	113,282	127,559
Central Western ..	118,559	108,322	115,103
Southwestern ..	57,278	54,533	56,756
Total Western Districts	297,189	276,157	299,423
Total All Roads	757,333	677,540	779,805
Commodities:			
Grain and grain products	48,506	44,588	40,613
Livestock	7,276	7,708	8,095
Coal	125,793	104,081	127,460
Coke	11,625	7,179	14,168
Forest Products ..	44,692	40,711	44,950
Ore	74,682	66,977	87,741
Merchandise l.c.l. ..	61,515	61,451	69,531
Miscellaneous ..	383,244	344,845	387,247
May 14	757,333	677,540	779,805
May 7	740,935	647,954	765,411
April 30	730,137	647,925	781,499
April 23	705,848	626,182	779,804
April 16	674,389	612,884	751,628
Cumulative total, 19 weeks ..	12,652,107	11,781,714	13,603,633

In Canada.—Carloadings for the seven-day period ended May 7 totaled 78,932 cars, compared with 96,650 cars for the previous nine-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
May 7, 1955 ..	78,932	31,542
May 7, 1954 ..	68,061	28,387
Cumulative Totals:		
May 7, 1955 ..	1,239,777	565,189
May 7, 1954 ..	1,192,015	517,077

"Monthly Comment" Is Now "Transport Economics"

"Transport Economics" is the new name of the monthly review issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The review was previously called "Monthly Comment on Transportation Statistics."

The new name became effective with the May issue, which also introduced a new format with a picture occupying the front cover. A notice by the bureau's director, E. R. Ielsma, said the picture would be changed each month to show some form of surface transportation. Another new feature is the addition of an appendix consisting of five tables showing condensed current statistics for Class I line-haul railroads.



ATOMIC REACTOR SYSTEMS for commercial power are being investigated in the atomic energy test area (shown above) at the Babcock & Wilcox Research Center, Alliance, Ohio. Both high-pressure water-cooled and liquid-cooled reactor systems are under study, and a new gasketed closure for atomic pressure vessels to replace the solid welds now used to prevent radioactive leakage is under

development. Other important B&W research activities include development of high-temperature and high-pressure alloys; submerged arc welding at speeds five times as fast as comparable welding methods; steam generators operating at above-critical pressures and temperatures, 4,500 psi and 1,150 deg. F, respectively; and investigations in the burning of low-grade fuels.

Another change is in the disclaimer which now says the review, "issued as information, has not been adopted" by the commission. It formerly said "has not been considered or adopted."

New Facilities

Fred Harvey to Build New Grand Canyon Hotel

A new hotel will be built at Grand Canyon by the Fred Harvey organization as part of a \$1-million remodeling and modernization program being carried out on various tourist facilities along the canyon's south rim and in the canyon itself.

Fred Harvey has purchased from the Santa Fe the hotels, sightseeing facilities, service buildings and equipment which the Harvey organization has operated since 1904. The sale included El Tovar Hotel, Bright Angel Lodge and cabins on the south rim; Phantom Ranch, at the bottom of the canyon, and several other developments. Ten new 33-37-passenger Flexible sightseeing coaches have been acquired.

Last year 814,130 persons visited the canyon. The new hotel is planned to alleviate crowding in the peak tourist season, when visitors number as high as 7,000 per day. As yet unnamed, it will be styled to blend "harmoniously

and inconspicuously" with the canyon landscape, a spokesman for the Harvey organization said. When completed late in 1956, it will provide an additional 100 rooms, bringing the total capacity of Harvey overnight accommodations at the canyon to 1,300.

Purchase of south rim facilities by Harvey coincided with renewal of the organization's franchise by the National Park Service. Congress approved the franchise last November, retroactive to last August.

Southern Pacific Extends Inter-City Dialing

By the end of this year, Southern Pacific employees at work in "on-line" cities from Dunsmuir, Cal., 322 miles north of San Francisco, to Indio, Cal., 611 miles to the south, will be able to dial one another directly over the company's intercity telephone dialing system.

In applying this system, the SP is using a combination of carrier channel and physical circuits, with frequency signaling on the carrier circuits. Circuits for installations now in progress will be terminated in PBX's rented from commercial telephone companies, which provide mechanical and selector equipment necessary for connecting railroad circuits to the PBX systems for two-way repeating dial tie lines.

Intercity dialing is now in service from San Francisco to Los Angeles; Sacramento and Stockton; Los Angeles

to Colton; Oakland to Stockton, Martinez, Tracy and Sacramento; and Sacramento to Gerber. Further expansion which will be in service this year includes the territory San Francisco-Oakland to Dunsmuir; San Francisco to San Jose, Fresno and Bakersfield; Los Angeles to El Centro, Indio, and Santa Barbara; Santa Barbara to San Luis Obispo; Dunsmuir to Klamath Falls; and Portland, Ore., to Eugene.

Chicago's Consolidated Ticket Office Revamped

The "consolidated ticket office" setup in the Insurance Exchange building, Chicago, has been modified.

Prior to May 1, there were two ground-floor ticket offices in the building—one for Western lines and one for Eastern carriers. On that date, however, the Santa Fe, the Rock Island, the New York Central and the Chicago & Eastern Illinois moved to other locations. The Milwaukee moved in with the Eastern roads, and the separate Western office was closed.

Now participating in what was formerly the Eastern lines' ticket office are the Baltimore & Ohio; Gulf, Mobile & Ohio; Milwaukee; Chesapeake & Ohio; Erie; Nickel Plate; Illinois Central, and Wabash.

Labor & Wages

L&N Must Pay All Health-Plan Costs

The entire cost of their non-operating employees' health-and-welfare plan must now be paid by the Louisville & Nashville, the Nashville, Chattanooga & St. Louis and affiliated roads involved in the two-month strike which ended May 11.

That was the award of Referee Francis J. Robertson, who arbitrated

UNIONISTS DISILLUSIONED WITH NATIONALIZATION

There is some evidence that railway nationalization is not as popular with Britain's railway unionists as it was before socialization became an accomplished fact. The April 8 issue of *Railway Review*, official organ of the National Union of Railwaymen, published an article by a local union official. The heading on the article read: "After seven years of nationalization—nothing to celebrate." The writer says that: "Nationalization, as such, none of us is against, but the way it has been conducted stands condemned."

the dispute under an agreement which provided that his decision would be binding on the parties (*Railway Age*, May 16, page 15). The cost to the roads is expected to be about \$5.95 a month per employee.

The national plan, accepted by the railroads generally but rejected by the L&N and its affiliates, costs \$6.80 per month per employee; but the employees pay half of it. Also, the national plan is compulsory.

The L&N group offered an alternative, non-compulsory plan under which the employee's monthly payments would have been less than under the national plan. The non-op unions rejected the offer and called the strike. The issue of compulsion was avoided by the referee's award, since it will make the employees non-contributing beneficiaries.

Securities

Authorization

DENVER & RIO GRANDE WESTERN.—To assume liability for \$2,340,000 of equipment trust certificates to finance in part purchase of 15 diesel-electric units at an estimated total cost of \$3,179,676 (*Railway Age*, April 25, page 16). Division 4 approved sale of the securities, with an interest rate of 27/8%, for 99.105—the bid of Salomon Bros. & Hutzler and three associates—which will make the annual cost of the proceeds to the road approximately 3.02%. The certificates were reoffered to the public at prices yielding from 2.25 to 2.9%, according to maturity.

Security Price Averages

	May 24	Prev. Week	Last Year
Average price of 20 representative railway stocks	94.56	92.97	72.25
Average price of 20 representative railway bonds	98.45	98.41	94.72

Law & Regulation

Brown Answers Truckers' Assault on Weeks' Report

"Frankly, I am a little disappointed that the trucking industry should see fit to attack so strongly and quickly the report of the President's Advisory [cabinet] Committee on Transportation Policy and Organization," Warren W. Brown, president of the Monon, has told members of the Chain Store Traffic League.

"It would seem to me that both we and the truckers could realize greater gains if the trucking industry would accept the report. The benefits to be achieved by all common carriers are substantial if both have an equal opportunity to compete for a larger share of business," he stated.

Devoting much of his talk to answering charges leveled against the

PRR OFFERS CAB RIDE AS EXCURSION INDUCEMENT

A chance for 12 5-to-18-year-old boys to ride in the cab of a Pennsylvania electric locomotive is being featured in connection with a special "father-son" excursion from Philadelphia to Harrisburg and return June 5. The trip will be divided, each way, into three approximately equal sections, and two boys, chosen by lot by a drawing of numbered stubs from tickets purchased no later than June 2, will ride the locomotive over each section. A special engineman will be in the cab to explain operations and answer questions.

Time at Harrisburg may be devoted to inspecting a display of modern motive power; to visiting state buildings; or to an optional side trip to Gettysburg, including a guided tour of the battlefield. Tickets will be sold at less than half regular fares—to mothers, sisters and friends, as well as fathers and sons.

Each Saturday through June 25, the PRR is offering family excursions from New York to Trenton and Philadelphia and return at fares of \$6.50 and \$10, respectively, for husband and wife; husband, wife and one or two children 5 to 21; or husband or wife and two or three children 5 to 21. Extra children 5 to 21 will be carried at a round-trip fare of \$1 each, with all those under 5 free. Tickets will be good for the full 24 hours, and on any train except those having reserved-seat coaches.

report by spokesmen for the trucking industry, Mr. Brown said:

"You are told that rail carriers will ruin the trucks by selective pricing. This is the very method by which the trucking industry has grown, but that now seems somewhat incidental.

"You are told that the report's proposals would 'set transportation back 75 years' and that the railroad industry will strike a mortal blow at the trucks. The changes proposed in railroad regulation are not vast sweeping reforms. Instead they are merely mild and necessary steps to be taken in the battle to apply a little free enterprise philosophy to American transportation. They will not permit the rails to run rampant. They will merely allow us to compete for a change—a refreshing change."

Millenium.—"The trucking industry is economic unfairness," Mr. Brown charged. "If it has saved the user billions of dollars, it has done so at the expense of its fellow American citizens," he said. The revisions proposed by the report "are to be accomplished without the outlay of any public funds. This, in itself, is a millenium—something better in transport." (Continued on page 46)

Move your freight cars with trouble-free

How R-S Journal Stops and Satco lining metal can reduce journal box servicing and maintenance requirements . . . can speed up train departures and eliminate need for servicing en route.

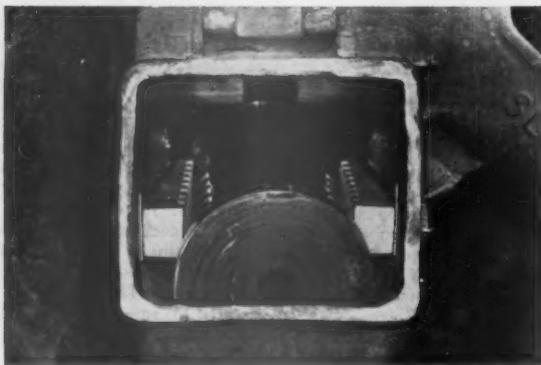
SATCO and R-S Journal Stops make the conventional waste pack an efficient lubricator. They give better bearing performance at the same time they reduce existing maintenance and servicing requirements. They eliminate old problems and *do not add any new ones.*

Equip all cars in a consist with Satco and Journal Stops and journal box inspection could be on a periodic basis — would not be required after each humping or switching operation.

The reasons: First, you seldom have to adjust packing and actual adjustment takes less time; second, you keep

more oil in the packing, get constant lubrication; and third, bearings run cooler increasing vital oil film thickness.

R-S Journal Stops keep the packing right where it belongs — 1" below the journal center line. Time and again road service tests with Journal Stops have proved that packing is undisturbed even after trips of 5000 miles or more. Without R-S Journal Stops, whenever there's a road or switching impact, or heavy brake application, you force the axle out from under the bearing. That crushes the dust guard, forces the box to rise, and squeezes the packing against the bottom of the journal — squeezes the



View of R-S Journal Stop installation with box jacked and bearing, wedge and packing removed. Note shims which permit maintaining nominal clearance on undersize journals.



Two of bearings removed after 38 months service in freight car equipped with R-S Journal Stops. All bearings were in such excellent condition they were reapplied. Crown has extended to point where it is wider than required for "fitted" bearings — but lining has not overrun.

MAGNUS METAL CORPORATION

TO DESTINATION

journal boxes!

oil out of the packing, too. This loose oil is free to splash out the back or front of the box—sometimes does before it can be reabsorbed.

Journal Stops prevent all that. For more miles than necessary to cross the country, you can maintain oil-to-packing saturation ratios of better than 2.75 to one—more than adequate to lubricate efficiently. And because you don't compress the packing, you maintain constant journal-to-packing pressures—assure a constant feed of oil to the bearing.

WHAT SATCO CAN DO

Use Satco-lined bearings and R-S Journal Stops, and you lick the major problems that lead to bearing troubles. Bearings run about 20° cooler on Satco. You get lower operating temperature, higher operating oil viscosity, and a thicker film of oil. That all adds up to increased operating safety and better bearing performance.

Satco has a melting point 150° higher than standard AAR babbitt. It's harder and stronger at elevated temper-

atures. In the laboratory and on the road Satco has actually been run at temperatures of 400° F. with no effect on the bearing. That means high resistance to lint wipers and thread risers.

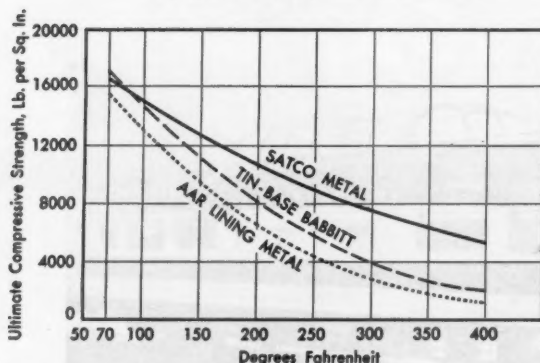
DYNAMIC LOAD FACTORS AND BEARING LIFE

R-S Journal Stops reduce dynamic load factors and Satco takes the toughest load you'll have. With Journal Stops the bearing always takes the load in the crown where it should, and Satco's extra strength at high temperatures assures added resistance to both wear and load. That means far longer bearing life—no spread linings, no cracked or shelled-out linings.

With Journal Stops you also get reduced and more uniform wheel flange wear, and the prospects are for reduced center pin wear and a lower mortality rate for coil springs. In fact, you cut truck maintenance costs all along the line—get big savings for a very small investment.

Of all the many developments designed to reduce hot boxes, R-S Journal Stops and Satco are the only ones which require no special maintenance or precautions and introduce no new problems to car servicing forces. They put the selection of any alternate type lubricator on a purely economic basis. Also you still have all the other advantages which low-cost solid bearings bring to railroad rolling stock. You can take the maximum load, and make the fastest schedule. Lading gets the smoothest ride. You save excess dead weight per car and get the lowest running resistance in pounds per ton. Best of all, you'll be sure of the kind of bearing performance you want at the lowest possible cost. Magnus Metal Corporation, 111 Broadway, New York 6; or 80 E. Jackson Blvd., Chicago 4.

ULTIMATE COMPRESSIVE STRENGTH
AT NORMAL AND ELEVATED TEMPERATURES



Ultimate compressive strength of Satco is higher at elevated temperatures but approximately same as other lining metals at starting temperatures. This assures high degree of conformability.

MAGNUS

Solid Bearings

Subsidiary of **NATIONAL LEAD COMPANY**



Law & Regulation

(Continued from page 43)

tation without money being taken from your pocket to produce it."

"Is the trucker afraid of competition?," Mr. Brown asked. "If the trucking industry is as important and capable as it claims, it should have no qualms about its ability to exist under competitive conditions. If the ability of the railway industry to compete is increased, and the trucking industry suffers, the American public will gain because of the introduction of better transportation. In effect, then, the trucker, by opposing needed relief for the railway industry, appears to be attempting to deprive the American shipping and traveling public of improved service and lowered costs."

Supply Trade

Warren Ingersoll has been appointed assistant to president, **Electric Storage Battery Company**. He was formerly assistant to president, Lee Rubber & Tire Corp. **Edward A. Holland**, industrial sales engineer of Electric Storage Battery at New York, has been named assistant manager of the sales branch there.

A multi-million dollar expansion program for its Indiana Harbor, Ind., works has been announced by **Inland Steel Company**. The program will include addition of a seventh battery of coke ovens and accompanying by-products facilities. By early 1956 the plant's annual steel-making capacity will be increased by 200,000 tons. In-

stallation of additional material handling equipment in one of the open hearth furnace shops will bring its rated ingot capacity to 5,200,000 tons. The productive capacity increase is the third in as many years without construction of new steelmaking furnaces, Joseph L. Block, Inland president, stated.

James J. Reynolds, vice-president of industrial relations, **Alco Products, Inc.**, has been named vice-president—operations, in charge of manufacturing, procurement and material control, as well as employee services and industrial relations.

Max K. Ruppert, first vice-president of **Poor & Co.**, has been elected executive vice-president, and **Eugene C. Bauer, Jr.**, has been elected vice-president. Mr. Ruppert is president of **P. & M. Co.**, and Mr. Bauer is president of **Kensington Steel Company**, both subsidiaries of Poor & Co. Richard A. McLaughlin, general manager of Canton Forge & Axle Works division, has been appointed vice-president of the division.

National Pneumatic Company and Holtzer-Cabot divisions have announced the following appointments: **John R. Newkirk**, vice-chairman of the board; **Richard H. Frost**, president; **Harvey J. Finison**, executive vice-president; **J. J. Anderson**, vice-president and general sales manager; **Robert Frost**, vice-president for marketing.

Colson Corporation has become a wholly owned subsidiary of **Great American Industries, Inc.**, through exchange of stock. Colson will maintain its corporate identity and its current management.

OBITUARY

Charles A. Ferling, 54, sales engineer in the New York office of General Railway Signal Company, died May 15, after a prolonged illness.

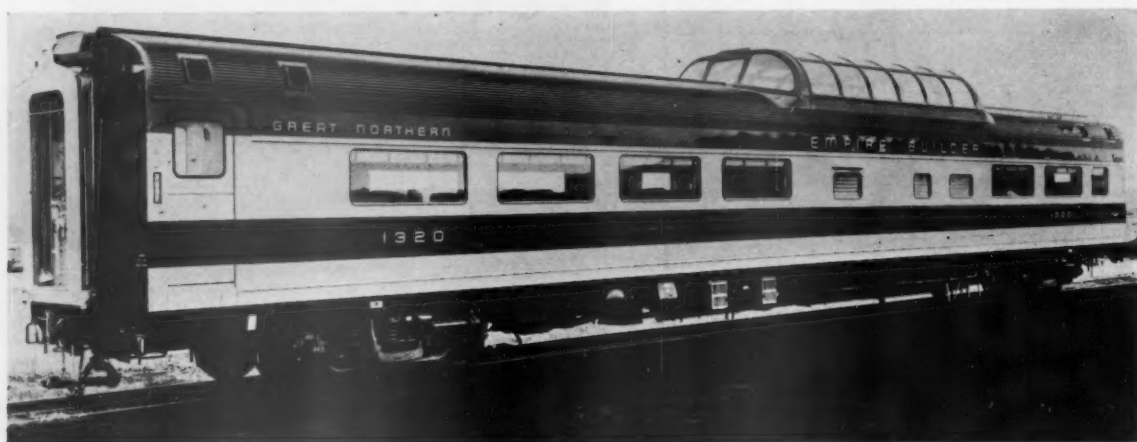
Financial

"Put Up or Shut Up," White Tells Young

Robert R. Young, chairman of the New York Central, has been asked to "put up or shut up" about the former management of the railroad. The request was made in a letter sent to Mr. Young by William White, who was president of the NYC until Mr. Young assumed control after last year's bitter proxy fight.

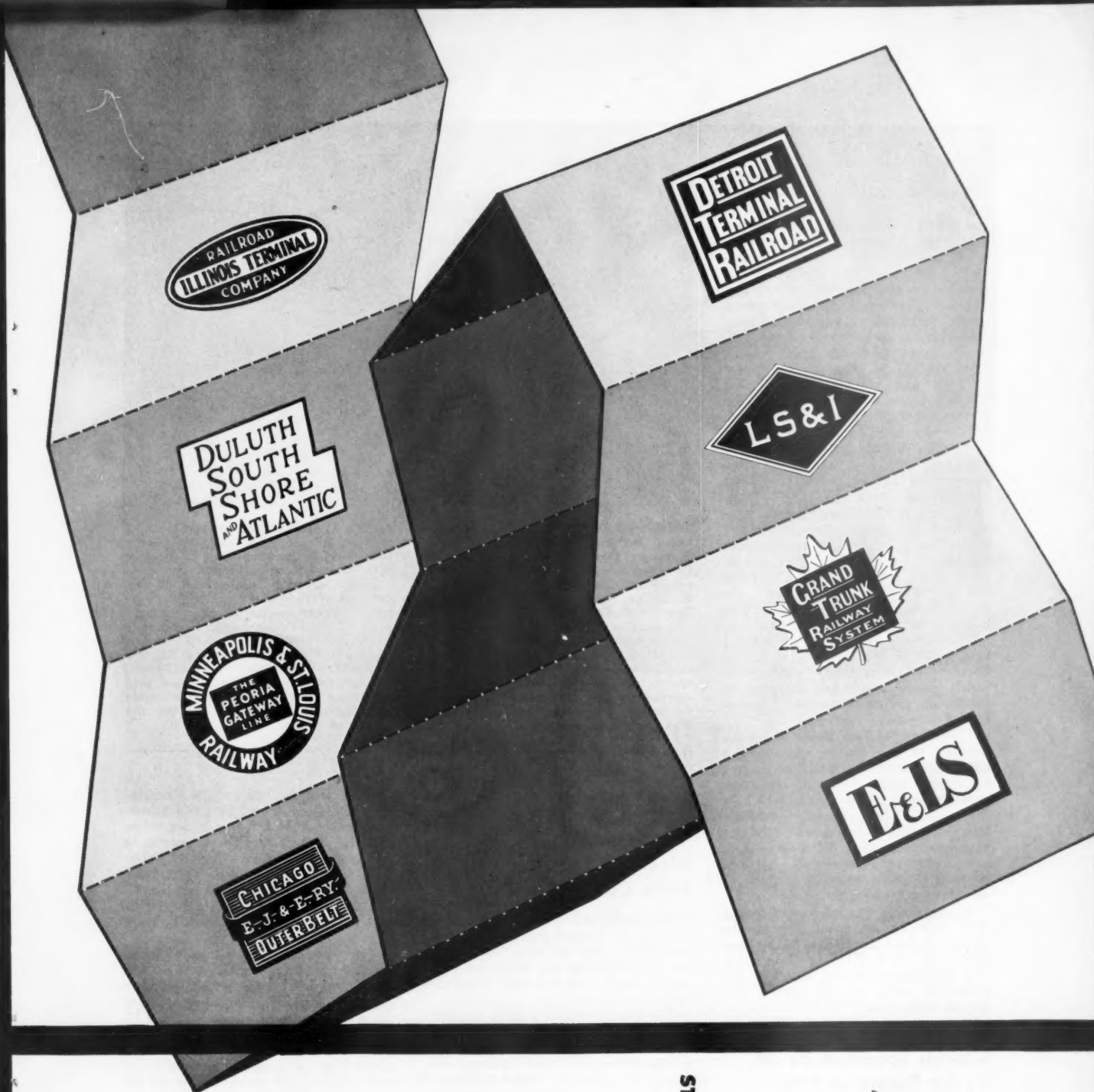
Because, said Mr. White, "the purpose of this letter is merely to keep the record straight, I will refrain from any other comment except to invite you, as a matter of simple justice, to either justify or refrain from making insinuations that the former directors and management of NYC engaged in skulduggery in the purchase of equipment, material and supplies, the handling of concessions and the handing out of privileges to bankers and others; with respect to former directors attempting to take advantage of cumulative voting to regain a place on the board of directors and attempting to frustrate your efforts; and with respect to former directors and management being in anywise responsible for the rash of lawsuits which you state have been started against Alleghany Corporation" [of which Mr. Young is chairman].

Mr. Young, in an earlier letter ac-



THE FIRST OF 22 dome-coaches and full-length dome-lounge cars built by the Budd Company for the Great Northern's "Empire Builder," this dome-coach went into service May 29. On that same day the GN reduced the train's westbound schedule from Chicago to Seattle from

45 to 44 hours. When delivery of the order is complete, each train set of "Empire Builder" equipment will have three reserved seat dome-coaches plus a full-length dome-lounge for Pullman passengers—a total dome seating capacity of 147.



just the ticket...

—And with the expanded use of low cost fuels, good lubrication is now more important than ever.

STANDARD OIL COMPANY (Indiana)



LUBRICATING OILS

THESE ARE JUST 8 OF 140 RAILROADS SERVED BY STANDARD OIL COMPANY

companying proxy material sent to shareholders before this year's May 26 annual meeting in Albany, N.Y., assailed what he called "certain powerful" and "selfish financial interests." "A year ago," he added, "these interests and their satellites would have had you believe that it is morally wrong for owners of a corporation to recapture control of their own property. . . . This year they would have you believe that it is morally wrong for shareowners, successful in asserting control of their property, to seek reimbursement for their expenses [*Railway Age*, April 25, page 14]."

"They had nothing to say," Mr Young's letter continued, "about the morality of the old board's high-handed refusal—as their own transfer agents—to transfer 800,000 shares of stock to new owners in order to keep it from being voted against them. They have had nothing to say about the morality of a great publishing organization being used for purposes adverse to and critical of your present management through the publication of articles in three of its magazines. . . . Nowhere has [the publishing organization] disclosed to its readers that its chairman is a partner in a Wall Street law firm which was retained as special counsel to Central. They have nothing to say about the morality of publications which refuse advertising designed to expose the failure to disclose this conflict of interests."

"They have nothing to say about the morality of publications which ignore news announcements made to correct the impression in the public mind created by the way they report and edit the news. They had nothing to say last year about the morality of the use of pressure to force off their assignment newspaper reporters who failed to color their news reporting in favor of the old management."

Meanwhile, it was announced by the NYC that on or about July 1 the Chemical Corn Exchange Bank, New York, will act as NYC agent in handling stock transfer and dividend disbursement work for the Central and certain subsidiaries.

Capital Spending by SP To Set Record in 1955

Capital expenditures by the Southern Pacific and its controlled affiliates "probably will reach a record \$115,000,000 in 1955," SP President D. J. Russell said at the road's annual meeting of shareholders.

Last year's capital investment totaled \$63,000,000, Mr. Russell reported. He said the road will spend more this year to keep pace with the growing population and industrial development in the territory it serves.

Included in 1955 plans are the new \$30 million pipe line, on which construction has already begun. (*Railway Age*, February 28, p. 8). A large part of the remainder, Mr. Russell said, will



OFFICIAL OPENING of a new iron mine and ore beneficiating plant at Marmora, Ont., was celebrated May 12 by Canadian federal and provincial representatives and officers of the Canadian National and the Bethlehem Steel Company. The new mine, operated by Marmoraton Mining Company, a Bethlehem subsidiary, is expected to produce annually half a million tons of high-grade concentrates, which will be pelletized and carried by the CNR to Picton, Ont., 64 miles away, for lake shipment. The railroad has invested approxi-

mately \$2 million to modernize and enlarge its facilities, and to provide two diesel locomotives and 75 hopper cars. Shown here at Picton, on opening day, are C. D. Howe, Canadian minister of trade and commerce; Charlotte Whitton, mayor of Ottawa; Senator W. A. Fraser; L. M. Frost, premier of Ontario; Ralph Campney, minister of defense; A. B. Homer, president of Bethlehem Steel; Donald Gordon, chairman of the board and president of the Canadian National; and Michael McFarland, son of the mayor of Picton.

go for new diesel power and freight cars.

Would IT Purchase Stifle Competition?

The effect that purchase of the Illinois by an 11-road group will have on competition was the main issue raised in briefs filed at the Interstate Commerce Commission last week by parties to the proceeding.

The Department of Justice, admitted to the case as an intervenor in behalf of the shipping public and the federal government as a shipper (*Railway Age*, March 28, page 42), posed a series of questions it said affected "the interests represented by the Department."

The Toledo, Peoria & Western asked the ICC to block the proposed purchase. This road, which sought unsuccessfully to buy the IT independently, charged that the purchase group favors "suppression" of the IT as a competitor in "drastic disregard of the anti-trust acts."

The purchase group—consisting of the Baltimore & Ohio; Chicago & Eastern Illinois; Burlington; Gulf, Mobile & Ohio; Illinois Central; Litchfield & Madison; Nickel Plate; Frisco; Wabash; Rock Island and New York Central—maintained that all competitive aspects will be preserved. They

said the terminal will only be strengthened and rehabilitated by the purchase and said the TP&W opposition stems from its desire to gain direct access to St. Louis. The Illinois-Missouri Terminal, formed by the buying group for that purpose, would purchase the IT for \$20 million and operate its facilities (*Railway Age*, February 7, page 12).

The Justice Department asked whether existing through routes and joint rates will be preserved; whether competition will be eliminated; whether there was any need to eliminate the IT as a "truly independent operating line"; whether the applicants might profit from any proposed abandonments and whether the purchase was an attempt to forestall the "impending competitive development" of the IT being purchased by a single carrier.

Toledo, Peoria & Western.—Purchase Offer Studied.—An offer by B. W. Heineman, chairman of the Minneapolis & St. Louis, to purchase controlling interest of the Toledo, Peoria & Western, is reported under study by trustees of the George P. McNear estate, which owns 82% of the TP&W shares. Mr. Heineman last week refused comment on the proposal which, it is understood, would involve about \$9.6 million for the McNear stock. Extension of the offer to cover other outstanding TP&W shares would boost



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the purchase price to \$12 million. The 239-mile TP&W connects with the M&StL at Peoria, Ill.

Railway Officers

ASSOCIATION OF AMERICAN RAILROADS.—As reported in *Railway Age* May 16, **Charles O. Morgret** has been promoted to manager of special studies, Public Relations Department, Washington, D.C. Mr. Morgret was born at Berkeley Springs, W. Va., October 11, 1921, and attended George Washington University



Charles O. Morgret

and Strayer Business College at Washington. He joined the AAR in 1939 as messenger, rising to clerk, office manager, and public relations assistant to vice-president in charge of public relations. Mr. Morgret served in the U.S. Army during World War II and the Korean War, entering as private and being separated as captain. He is now a reserve major; he received the Bronze Star at Iwo Jima.

BESSEMER & LAKE ERIE.—**F. T. Westmeyer**, district manager, Car Service Division, Association of American Railroads, at Seattle, Wash., has been appointed assistant superintendent transportation of the B&LE at Greenville, Pa.

BOSTON & MAINE.—**Edward F. Sinclair** has been appointed assistant to executive vice-president at Boston. Mr. Sinclair entered railroad service in 1912 as a clerk with the Delaware & Hudson, later becoming secretary to executive vice-president. He became general assistant to vice-president of the Wabash in 1926 and remained there until 1942. From 1943 to 1945 he was with the Office of Defense Transportation as assistant and director and executive officer of its railroad branch. In 1945 he went to Germany as chief of rail branch office of the U. S. Military Government, and in 1950 moved to Turkey as consultant

to Turkish State Railways at Ankara. Leaving that position in 1952, Mr. Sinclair went to Arabia as consultant to the Saudi Arabian government on transportation matters. Since 1954 he has been in Washington, D.C., as a private consultant on rail and highway transportation.

CANADIAN NATIONAL.—**Captain R. A. Clarke**, general manager of railway marine services and of CN (West Indies) Steamships at Montreal, has retired.



Edward A. Ryder

E. A. Ryder, assistant general freight traffic manager at Montreal, has been appointed general freight traffic manager there, succeeding **G. E. Smith**, who retires May 31, after 47 years of service. Mr. Ryder entered CNR service in 1920 as a clerk and became assistant general freight traffic manager in 1953. **Charles L.**



Charles L. McCoy

McCoy, freight traffic manager in charge of rates, tariffs and divisions at Montreal, has been named assistant general freight traffic manager, rates, tariffs and divisions. **Henry W. Craig**, assistant to vice-president, traffic, at Montreal, has been appointed freight traffic manager, and **Alexander H. Hart**, special assistant in the traffic department, has been named assistant to vice-president, traffic.

R. S. Carey, trainmaster at Ham-

ilton, Ont., has been appointed assistant superintendent there, succeeding **C. E. Shaver**, whose appointment as superintendent terminals at Black Rock, N. Y., was reported in *Railway Age* May 2.

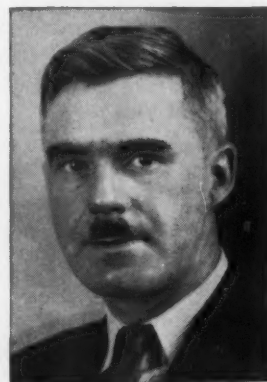
William E. Griffiths, assistant chief engineer, Central region, at To-



Henry W. Craig



Alexander H. Hart



William E. Griffiths

ronto, has been appointed chief engineer of that region, succeeding **Karl Huffman**, who has retired after 45 years of service. Mr. Griffiths was born in England in 1901, went to Canada in 1911, and was graduated from McGill University in 1931 (B.S. in



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C.E.). He joined the CNR district engineer's office at Montreal in 1937, as concrete inspector, later serving as instrumentman, assistant engineer, assistant division engineer, division engineer, general maintenance inspector at Montreal terminals and engineer of track at Montreal. In May 1950 Mr. Griffiths was named assistant chief engineer, Central region.

CHICAGO & NORTH WESTERN.—**Martin G. Gundersen**, general commerce agent, has been named traffic manager—commerce, and **Harold A. Hoppe**, assistant general commerce agent, has been named assistant traffic manager—commerce, both with headquarters remaining at Chicago. Their former positions have been abolished.

ERIE.—As reported in *Railway Age* May 9, **Stanley F. McGranahan** has been named assistant vice-president at Cleveland; **James P. Allison** has been promoted to succeed Mr. McGranahan as general manager, Western district, at Youngstown, Ohio; and **Thomas E. McGinnis** replaces Mr. Allison as assistant general manager at Youngstown.



Stanley F. McGranahan



James P. Allison

Mr. McGranahan was born at Jamestown, Pa., and joined the Erie in 1910 as clerk at Greenville, Pa., later serving as agent, station supervisor, division

chief clerk, yardmaster, inspector of transportation, chief clerk to superintendent, assistant superintendent transportation, superintendent of the Buffalo and Rochester divisions, superintendent of the New York division, and assistant general manager of the East-



Thomas E. McGinnis

ern district. He was appointed general manager, Western district, in 1951.

Mr. Allison was born at Baltimore, July 3, 1905, and attended Cornell University (C.E., 1928). He entered Erie service in 1929 in the engineering corps at Buffalo. After serving in various maintenance of way positions, including track supervisor, he was successively inspector of operation, trainmaster, assistant division superintendent and division superintendent. He was appointed assistant general manager of the Western district in December 1949.

FRISCO.—**K. E. Henderson** and **K. W. Schoeneberg** have been named division engineers at Tulsa, Okla., and Fort Smith, Ark., respectively.

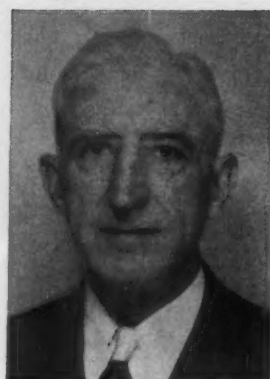
ILLINOIS TERMINAL.—**E. G. Wangelin** has been elected vice-president—traffic at St. Louis, succeeding **William M. Long**, who retires June 1, after 49 years of railroad service, 33 of which were with the IT. The position of vice-president and treasurer, formerly held by Mr. Wangelin, has been abolished.

KANSAS CITY TERMINAL.—**T. W. Avery**, assistant chief engineer at Kansas City, Mo., has been appointed chief engineer there, succeeding **F. J. Ackerman**, who has retired after 42 years of service.

NORFOLK & WESTERN.—The office of **C. H. Sheffield**, general agent at Jacksonville, Fla., has been moved from Florida Title building to Room 1010, Independent Life building.

SOUTHERN.—**Frank E. Stubbs**, assistant diesel superintendent at Washington, D.C., has been appointed superintendent, Atlanta (Ga.) motor shop.

John W. Davis, commercial agent, has been promoted to district freight agent, with headquarters remaining at



KANSAS CITY TERMINAL.—**W. W. MacCallum**, who has been appointed secretary and auditor at Kansas City, Mo. (*Railway Age*, May 2, page 69).

Louisville, Ky., succeeding the late **L. P. Stiebling**.

WESTERN MARYLAND.—Acting on doctor's advice to curtail his activities, **Lane McCrosky**, general agent at Atlanta, has requested temporary relief from all supervisory responsibilities, but will continue to represent the WM in the Florida area, from his home at 737 Springdale road, Orlando, Fla. **William T. McLendon**, traffic representative at Atlanta, has been appointed acting general agent there.

R. R. Gundersen, bridge and structural engineer at Baltimore, has been appointed engineer maintenance of way at that point. **E. D. Billmeyer**, division engineer at Cumberland, Md., succeeds Mr. Gundersen as bridge and structural engineer at Baltimore. **R. B. Wooters** replaces Mr. Billmeyer as division engineer at Cumberland.

William L. Weinacht has been appointed rail-truck traffic manager at Baltimore, a newly created position "designed to accelerate and give intelligent direction to the railroad's newly integrated rail-truck service." Mr. Weinacht will direct sales and servicing of the road's new piggyback development, which was inaugurated early this year. He was formerly associated with the traffic department of the Nickel Plate at Chicago.

OBITUARY

Harold E. Garrison, division freight agent for **Jersey Central Lines** and the **New York & Long Branch** at Long Branch, N.J., died May 7.

John P. Falk, 76, retired division superintendent of the **Burlington** at Chicago, died May 22 at LaGrange, Ill.

Henry Oliver Dunkle, 96, former general manager of the **Erie**, died March 31 at his home in Cleveland.

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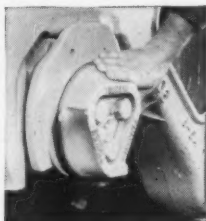
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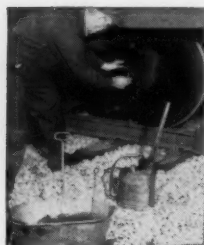


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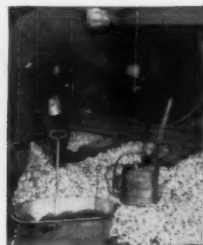
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2 Check for dirty packing



3 Check for displaced packing



4 Check for spread linings



5 Check amount of lubricant



6 Check condition of box lid



7 Check for misplaced wedges



8 Check for cut journals



9 Check for waste grab

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